ಕರ್ನಾಟಕ ಸರ್ಕಾರ

ಶಾಲಾ ಶಿಕ್ಷಣ ಮತ್ತು ಸಾಕ್ಷರತಾ ಇಲಾಖೆ

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ಪಾಠ ಆಧಾರಿತ ಮೌಲ್ಯಾಂಕನ ಸಾಮಗ್ರಿ

2025-26

ವಿಷಯ: ಗಣಿತ

ತರಗತಿ: 4ನೇ

ರಾಜ್ಯ ಶಿಕ್ಷಣ ಸಂಶೋಧನೆ ಮತ್ತು ತರಬೇತಿ ಇಲಾಖೆ,

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Lesson 1: Building with Bricks

Learning Outcomes

By the end of this lesson, children will be able to:

1. Identify basic 2-D and 3-D shapes used in brickwork.
2. Count and compare areas using unit squares.
3. Recognise brick wall patterns and create new ones.
4. Use multiplication/addition to find totals of bricks.
5. Distinguish between perimeter and area in simple contexts.

Knowledge Questions (20)

1. What shape is the face of a brick? **(Ans: Rectangle)**
2. A brick is an example of which solid shape? **(Ans: Cuboid)**
3. How many corners does a square have? **(Ans: 4)**
4. How many sides does a rectangle have? **(Ans: 4)**
5. How many faces does a cube have? **(Ans: 6)**
6. Which has all sides equal — a square or a rectangle? **(Ans: Square)**
7. How many edges does a cuboid have? **(Ans: 12)**
8. Which shape has no corners? **(Ans: Circle)**
9. What is the unit of measuring area? **(Ans: Square unit)**
10. How many right angles does a rectangle have? **(Ans: 4)**
11. How many faces of a brick are rectangular? **(Ans: All 6 faces)**
12. What is the plural of “vertex”? **(Ans: Vertices)**
13. If a wall has 1 row of 10 bricks, how many bricks? **(Ans: 10)**
14. Which is bigger: 5×2 rectangle or 4×4 square? **(Ans: 4×4 square, area 16)**
15. A cube is made up of equal ___? **(Ans: Squares)**
16. A cuboid is made up of rectangles and ___? **(Ans: Squares)**
17. What is perimeter? **(Ans: Distance around a shape)**
18. What is area? **(Ans: Surface covered by a shape)**
19. Which is longer: breadth or length of a brick? **(Ans: Length)**

20. What shape are most floor tiles? **(Ans: Square or rectangle)**

Comprehension Questions (20)

1. Why do masons arrange bricks in alternate rows? **(Ans: To make the wall stronger)**
2. In a 3×3 square grid, how many unit squares are there? **(Ans: 9)**
3. A square of side 4 has area 16. How? **(Ans: 4×4=16)**
4. Why does rotating a rectangle not change its area? **(Ans: Shape and sides remain same)**
5. Which is easier — counting bricks row-wise or one by one? **(Ans: Row-wise)**
6. How can you check if two rectangles have same area? **(Ans: Compare by multiplying length × breadth)**
7. If you double the length and breadth of a rectangle, what happens to the area? **(Ans: Becomes 4 times)**
8. What is the difference between perimeter and area? **(Ans: Perimeter = boundary; area = surface covered)**
9. In a 2×5 rectangle, how many rows? **(Ans: 2)**
10. Why is a brick called a cuboid? **(Ans: It has 3 different dimensions: length, breadth, height)**
11. Give an example where bricks are used for decoration. **(Ans: Building walls, pathways, patterns)**
12. Why are unit squares useful in measuring area? **(Ans: Help in counting equal parts)**
13. What makes a square special compared to other rectangles? **(Ans: All sides equal)**
14. Which has more perimeter — 2×6 rectangle or 3×4 rectangle? **(Ans: 2×6 has perimeter 16, larger than 14)**
15. What happens to number of bricks if one row is added to a wall? **(Ans: Increases by number of bricks in row)**
16. Why is symmetry important in design? **(Ans: Makes patterns beautiful and balanced)**
17. How can bricks be used to show repeated patterns? **(Ans: By arranging in alternate or mirror designs)**
18. If 2×3 rectangle and 3×2 rectangle are compared, do they have same area? **(Ans: Yes, both = 6)**
19. How is area different from length? **(Ans: Length is one dimension, area is two-dimensional space)**
20. Why do we use multiplication for counting rows of bricks? **(Ans: It is faster than repeated addition)**

Application Questions (20)

1. A path needs 3 rows of 12 bricks. How many bricks are needed to complete the path?

   (Ans: 36)

2. A rectangle is 6 units long and 2 units wide. Find the area. **(Ans: 12)**
3. A wall has 4 rows of 6 bricks. Remove 5 bricks. How many bricks are left? **(Ans: 19)**
4. Draw a rectangle with area 12. **(Ans: Possible: 3×4, 2×6)**
5. A playground is 5×3. How many 1x1 tiles are needed? **(Ans: 15)**
6. A window frame is 2×3. What is the Area? **(Ans: 6)**
7. If 2 rows have 8 bricks each, how many total bricks are there? **(Ans: 16)**
8. Draw two different rectangles with area 20. **(Ans: 4×5, 2×10)**
9. How many 1×1 tiles cover 8×2 mat? **(Ans: 16)**
10. A tray has 15 boxes in 3 rows. How many boxes are there in each row? **(Ans: 5)**
11. Draw a 2×6 rectangle. Shade half of them. How many are now shaded? **(Ans: 6)**
12. A garden has 6×5 tiles. Add one more row. What is the total now? **(Ans: 36)**
13. If 20 tiles are arranged in a square, what size is the square? **(Ans: 4×4 = 16; nearest square)**
14. Which is greater: 4×4 square or 2×8 rectangle? **(Ans: 4×4=16, bigger than 16=equal actually)**
15. A floor is 9×3. Find the area. **(Ans: 27)**
16. A mat is 2×9. Divide into equal squares. How many squares will you get? **(Ans: 18)**
17. Find perimeter of 3×4 rectangle. **(Ans: 14 units)**
18. Find perimeter of 5×2 rectangle. **(Ans: 14 units)**
19. Two rectangles: 3×6 and 2×9. Which has more area? **(Ans: Both = 18)**
20. A square has side 5. Find the area. **(Ans: 25)**

Skill-Based Questions with Figures (20)

(Simple ASCII/text drawings for child-friendly style)

1. Draw a 3×4 grid: Shade 5 boxes. What is the shaded fraction? **(Ans: 5/12)**
2. Draw a staircase (1,2,3,4 blocks). Count the total. **(Ans: 10)**
3. Draw 2×2 square and 1×4 rectangle. Which is a square? **(Ans: 2×2)**
4. Draw 3 rows of 5 bricks. Shade 1 row. How many are shaded? **(Ans: 5)**

5. Draw L-shape (3 down + 2 across). How many squares are ? **(Ans: 5)**
6. Draw 2×6 rectangle and 3×4 rectangle. Which is longer? **(Ans: 2×6)**
7. Draw 3×3 square. Shade diagonal. How many are shaded? **(Ans: 3)**
8. Draw border pattern: red, blue, red, blue. Continue the pattern for 6 more. **(Ans: red, blue, red, blue, red, blue)**
9. Draw 4×3 rectangle. Find the perimeter. **(Ans: 14 units)**
10. Draw 5×2 rectangle. How many unit squares are there? **(Ans: 10)**
11. Draw 2×5 strip. Colour alternate. How many are coloured? **(Ans: 5)**
12. Draw 3×3 square. Shade one row. What is the shaded fraction? **(Ans: 3/9=1/3)**
13. Draw 1×8 strip. Divide into halves. How many will each half have? **(Ans: 4)**
14. Draw 4×4 square. Remove 1 row. How many will be remaining? **(Ans: 12)**
15. Draw pattern: brick vertical, horizontal, vertical, horizontal. What comes next? **(Ans: Vertical)**
16. Draw 2×2 square. Rotate the square to 90°. Will the Shape be the same or different? **(Ans: Same)**
17. Draw 6×1 strip. Fold in half. How many squares will there be in each half? **(Ans: 3)**
18. Draw a 3×2 rectangle. Divide into two equal parts. What are the dimensions of each half? **(Ans: 3×1 each)**
19. Draw 4×2 rectangle. Shade half. What is the shaded fraction? **(Ans: 4/8=1/2)**
20. Draw 5×5 square. Shade 5 boxes. What is the shaded fraction? **(Ans: 5/25=1/5)**

Blueprint — Lesson 1: Building with Bricks

Objective	No. of Questions	Marks	Difficulty Level
Knowledge	4	4	3 Easy, 1 Medium
Comprehension	3	4	2 Easy, 1 Medium
Application	2	4	1 Medium, 1 Hard
Skill (Figures)	1	3	1 Medium
TOTAL	**10**	**15**	**Easy 50% · Medium 35% · Hard 15%**

Model Question Paper – Lesson 1: *Building with Bricks*

Class: 4 **Subject:** Mathematics
Max Marks: 15 **Time:** 25 minutes

Section A — Knowledge (4 × 1 mark = 4)

1. How many corners does a square have?
   Ans: 4

2. The face of a brick looks like which shape?
   Ans: Rectangle

3. Which solid shape looks like a brick?
   Ans: Cuboid

4. True/False: A circle has 4 corners.
   Ans: False

Section B — Comprehension (2 × 2 marks = 4)

5. In a 3×3 grid of squares, if you colour one full row, how many squares are coloured?
   Ans: 3 squares

6. Explain why a 4×3 rectangle has an area of 12 square units.
   Ans: It has 4 rows with 3 squares each. 4 × 3 = 12.

Section C — Application (2 × 2 marks = 4)

7. A garden bed is 4 units long and 3 units wide. How many 1×1 tiles are needed to cover it?
   Ans: 4 × 3 = 12 tiles

8. Rahul has 18 small bricks. Show two different rectangles he can make.
   Ans: 3 × 6 rectangle and 2 × 9 rectangle (both have 18 squares).

Section D — Skill (1 × 3 marks = 3)

9. Draw a 3×4 grid of small squares. Shade 7 of them.
   - How many total squares are there? **Ans:** 12
   - How many are shaded? **Ans:** 7
   - What fraction is shaded? **Ans:** 7/12

Lesson 2: Long and Short

Learning Outcomes

By the end of this lesson, children will be able to:

- Compare and order lengths using informal (handspan, footstep) and standard units (cm, m).
- Estimate and measure objects using a ruler or tape.
- Add and subtract lengths in real situations.
- Understand the relation between centimetres and metres.
- Solve simple word problems related to length and distance.

Knowledge Questions (20)

1. Which tool do we use to measure small lengths? **(Ans: Ruler)**
2. How many centimetres make 1 metre? **(Ans: 100 cm)**
3. Which is longer – a metre or a centimetre? **(Ans: A metre)**
4. Which unit is used for very short things like an eraser? **(Ans: Centimetre)**
5. Which unit is used to measure the length of a classroom? **(Ans: Metre)**
6. How many millimetres are there in 1 cm? **(Ans: 10 mm)**
7. What do we call the number shown when we measure length? **(Ans: Measurement)**
8. Which is bigger: 25 cm or 2 m? **(Ans: 2 m)**
9. A pencil is measured in ___? **(Ans: Centimetres)**
10. A football field is measured in ___? **(Ans: Metres)**
11. Which unit is smaller: cm or mm? **(Ans: mm)**
12. 150 cm is equal to how many metres? **(Ans: 1 m 50 cm)**
13. What is the full form of cm? **(Ans: Centimetre)**
14. What is the full form of m? **(Ans: Metre)**
15. What do we call the distance between two points? **(Ans: Length)**
16. Which is longer: 80 cm or 1 m? **(Ans: 1 m)**
17. How many 50 cm make 1 m? **(Ans: Two)**
18. Which unit is better to measure a book: cm or m? **(Ans: cm)**
19. Which unit is better to measure a bus: cm or m? **(Ans: m)**
20. How many metres are there in 3 km? **(Ans: 3000 m)**

Comprehension Questions (20)

1. Why should we use the same unit while comparing lengths? **(Ans: For fair comparison)**
2. Which is easier to measure: with handspan or ruler? Why? **(Ans: Ruler, more accurate)**
3. If a rope is 2 m long and another rope is 250 cm long, which is longer? **(Ans: 250 cm = 2 m 50 cm, so longer)**
4. Why do we use metres to measure classroom length instead of centimetres? **(Ans: Because classroom is long)**
5. If one child says his height is 140 cm and another says 1 m 30 cm, who is taller? **(Ans: 140 cm = 1 m 40 cm, so first child)**
6. What happens if we use different units while measuring the same object? **(Ans: We get different numbers)**
7. Why do we use metre tape for measuring roads? **(Ans: Roads are long)**
8. Which is easier: measuring with footstep or measuring tape? **(Ans: Tape, more correct)**
9. Which unit will you choose to measure a needle? **(Ans: Centimetres or millimetres)**
10. Why do shopkeepers use metre scales? **(Ans: To measure cloth correctly)**
11. How many 100 cm sticks make 5 m rod? **(Ans: 5 sticks)**
12. If two ribbons are 70 cm and 50 cm, which is longer? **(Ans: 70 cm)**
13. A scale is 15 cm long. How many such scales make 1 metre? **(Ans: About 7)**
14. Why is estimation useful before measuring? **(Ans: To guess length quickly)**
15. What is more accurate: estimation or measurement? **(Ans: Measurement)**
16. A boy measured a table with handspan and got 5. Another child got 6. Why? **(Ans: Hand sizes differ)**
17. Which is longer: 3 m 25 cm or 325 cm? **(Ans: Equal)**
18. Why do we write 1 m 25 cm instead of 125 cm sometimes? **(Ans: Easier to understand)**
19. Which is shorter: 2 m or 250 cm? **(Ans: 2 m = 200 cm, shorter)**
20. Why is "cm" written after numbers in measurements? **(Ans: To show unit)**

Application Questions (20)

1. A rope is 2 m long. Another rope is 180 cm long. Which is longer? **(Ans: 2 m = 200 cm, so longer)**
2. A table is 150 cm. A bed is 2 m. Which is longer? **(Ans: Bed)**
3. A pencil is 12 cm. Another is 18 cm. Find difference. **(Ans: 6 cm)**
4. A sari is 5 m. Another is 480 cm. Which is longer? **(Ans: 5 m = 500 cm, so sari is longer)**
5. A child runs 60 m. Another runs 80 m. Who runs more? **(Ans: Second child)**

6. A rope is 250 cm. Write in m and cm. **(Ans: 2 m 50 cm)**
7. A road is 3 km long. How many metres? **(Ans: 3000 m)**
8. A ribbon is 200 cm. How many metres? **(Ans: 2 m)**
9. A room is 6 m. A veranda is 750 cm. Which is longer? **(Ans: Room 6 m = 600 cm, so veranda longer)**
10. A line is 45 cm. Another is 0.5 m. Which is longer? **(Ans: 0.5 m = 50 cm, longer)**
11. A tablecloth is 2 m 20 cm. Convert into cm. **(Ans: 220 cm)**
12. A wall is 3 m high. A door is 250 cm. Which is taller? **(Ans: Wall)**
13. A rope is cut from 3 m into 2 pieces: 170 cm and __? **(Ans: 130 cm)**
14. A stick is 4 m. Convert into cm. **(Ans: 400 cm)**
15. A jump is 120 cm. Another is 1 m. Who jumps more? **(Ans: 120 cm > 100 cm)**
16. A cloth is 5 m. Another is 550 cm. Which is longer? **(Ans: 550 cm longer)**
17. A boy walked 2 km. Another 2200 m. Who walked more? **(Ans: Second)**
18. A ribbon is 175 cm. Convert into m and cm. **(Ans: 1 m 75 cm)**
19. A rope is 2.5 m. Convert into cm. **(Ans: 250 cm)**
20. A pencil box is 25 cm. Another is 0.2 m. Which is longer? **(Ans: 25 cm = 0.25 m, so box)**

Skill-Based Questions with Figures (20)

Use simple ruler/line drawings for practice.

1. Draw a 10 cm line. Mark half. How many cm each? **(Ans: 5 cm each)**
2. Draw a 20 cm line. Divide into 4 equal parts. How long each? **(Ans: 5 cm)**
3. Show 1 m rope with 100 cm markings.
4. Draw 15 cm scale. How many fit in 1 m? **(Ans: 6 full + a bit)**
5. Draw two pencils (12 cm, 18 cm). Which is longer? **(Ans: 18 cm)**
6. Draw a table (1 m) and a book (25 cm). Compare.
7. Mark 50 cm and 1 m on a line. Which is longer?
8. Draw 3 ribbons: 30 cm, 40 cm, 50 cm. Order them.
9. Draw 2 ropes (250 cm, 2 m). Which is longer?
10. Show 1 km = 1000 m on number line.
11. Draw 60 cm and 80 cm sticks. Compare.
12. Draw 3 jumps: 120 cm, 100 cm, 90 cm. Which longest?
13. Draw a 3 m wall and 2.5 m door. Compare.

14. Draw 45 cm and 0.5 m line. Which longer?
15. Draw 2 cloth pieces: 2 m, 180 cm. Compare.
16. Draw 3 lines: 10 cm, 20 cm, 30 cm. Add. **(Ans: 60 cm)**
17. Draw 1 m rope. Divide into 10 cm parts. How many? **(Ans: 10)**
18. Draw 2 ribbons: 75 cm, 1 m. Which shorter? **(Ans: 75 cm)**
19. Draw 1 km road. Show in m. **(Ans: 1000 m)**
20. Draw 2 scales: 15 cm, 30 cm. Which longer? **(Ans: 30 cm)**

Blueprint — Lesson 2: Long and Short

Objective	No. of Questions	Marks	Difficulty Level
Knowledge	4	4	3 Easy, 1 Medium
Comprehension	3	4	2 Easy, 1 Medium
Application	2	4	1 Medium, 1 Hard
Skill (Figures)	1	3	1 Medium
TOTAL	**10**	**15**	**Easy 50% · Medium 35% · Hard 15%**

Model Question Paper – Lesson 2: Long and Short

Class: 4 **Subject:** Mathematics
Max Marks: 15 **Time:** 25 minutes

Section A — Knowledge (4 × 1 mark = 4)

1. How many centimetres make 1 metre? **(Ans: 100)**
2. Which tool is used to measure cloth? **(Ans: Metre scale/tape)**
3. Which is longer: 50 cm or 1 m? **(Ans: 1 m)**
4. How many millimetres are there in 1 cm? **(Ans: 10)**

Section B — Comprehension (2 × 2 marks = 4)

5. A child says his height is 140 cm. Another says 1 m 30 cm. Who is taller?
   Ans: 140 cm = 1 m 40 cm, so first child is taller.
6. Why do shopkeepers use metre scales instead of handspan?
   Ans: Because handspan changes from person to person, metre scale is accurate.

Section C — Application (2 × 2 marks = 4)

7. A sari is 5 m. Another is 480 cm. Which is longer?
   Ans: 5 m = 500 cm. So sari is longer.

8. A table is 150 cm long and a bed is 2 m long. Which is longer and by how much?
   Ans: 2 m = 200 cm. Bed is longer by 50 cm.

Section D — Skill (1 × 3 marks = 3)

9. Draw a 20 cm line. Divide it into 4 equal parts.
   - Length of each part? **Ans: 5 cm**

Lesson 3: A Trip to Bhopal

Learning Outcomes

By the end of this lesson, children will be able to:

- Read and understand numbers up to 5 and 6 digits in real-life contexts (bus journey, tickets, people).
- Apply addition, subtraction, multiplication, and division to solve word problems.
- Estimate totals and check reasonableness of answers.
- Solve money and time-based problems from everyday life.
- Work with tables, charts, and simple data.

Knowledge Questions (20)

1. How many children went on the trip to Bhopal? **(Ans: 46 children)**
2. How many teachers went with them? **(Ans: 4 teachers)**
3. Total people on the trip? **(Ans: 50)**
4. How many seats were there in one bus? **(Ans: 50 seats)**
5. If there are 50 seats in a bus, how many people can sit? **(Ans: 50)**
6. How many buses were hired for the trip? **(Ans: 1 bus)**
7. How much was the bus fare from Indore to Bhopal? **(Ans: ₹3000)**
8. How much did each child pay for the bus? **(Ans: ₹75)**
9. How many lakes are there in Bhopal? **(Ans: 2 main lakes)**
10. What is the name of the larger lake? **(Ans: Upper Lake)**
11. Which is the smaller lake? **(Ans: Lower Lake)**
12. What is the total fare for 46 children? **(Ans: ₹3450)**
13. How many groups were the children divided into? **(Ans: 4 groups)**
14. How many boats were hired at the lake? **(Ans: 4 boats)**
15. How many people can sit in one boat? **(Ans: 6 people)**
16. How much money did one boat ride cost? **(Ans: ₹10 per person)**
17. How many children sat in 2 boats? **(Ans: 12 children)**
18. What is the cost for 6 children's boat ride? **(Ans: ₹60)**
19. What is the cost for 12 children's boat ride? **(Ans: ₹120)**
20. How much did they spend in total for 4 boats? **(Ans: ₹240)**

Comprehension Questions (20)

1. Why did they need only one bus for the trip? **(Ans: Because there were 50 people and 50 seats)**
2. Why is it cheaper to travel together in one bus? **(Ans: Cost is shared)**
3. If the bus fare is ₹3000 and 50 people go, how much does each pay? **(Ans: ₹60)**
4. Why did each child pay ₹75, not ₹60? **(Ans: Extra money for food and entry tickets)**
5. How do we know there are two lakes in Bhopal? **(Ans: From the map/picture)**
6. How do you know which is the bigger lake? **(Ans: Upper Lake is bigger)**
7. If 6 children sit in a boat, how many boats needed for 24 children? **(Ans: 4 boats)**
8. Why did they divide into groups for the trip? **(Ans: Easy to manage children)**
9. What do you understand by "fare"? **(Ans: Money paid for travel)**
10. How can you check if everyone has paid correctly? **(Ans: Multiply number of children × fare per child)**
11. Why is it useful to estimate cost before travel? **(Ans: To plan money)**
12. If each boat costs ₹10 per person, how much for 5 people? **(Ans: ₹50)**
13. Why did the children enjoy boating? **(Ans: Fun activity)**
14. Why did they go to the park after boating? **(Ans: For fun and food)**
15. If one group had 12 children, how many boats needed? **(Ans: 2 boats)**
16. Why did they carry lunch from home? **(Ans: To save money and enjoy picnic)**
17. How do you know bus travel is cheaper than train here? **(Ans: Fare was less for group in bus)**
18. Why was group activity important in this trip? **(Ans: Everyone worked together)**
19. How did they calculate total expenses of trip? **(Ans: Add bus fare, boat ride, food)**
20. Why should we always check the calculation again? **(Ans: To avoid mistakes)**

Application Questions (20)

1. If bus fare is ₹3000 and 46 children + 4 teachers go, how much per person? **(Ans: ₹60)**
2. If each child pays ₹75, how much money collected? **(Ans: 46 × 75 = ₹3450)**
3. If the cost was ₹3000, how much extra collected? **(Ans: ₹3450 – ₹3000 = ₹450)**
4. What can they buy with ₹450? **(Ans: Snacks, tickets)**
5. If 4 boats are hired and each takes 6 children, how many children can sit? **(Ans: 24)**
6. How much money collected for 24 children's boating? **(Ans: 24 × 10 = ₹240)**
7. If 2 teachers also went boating, add cost. **(Ans: 26 × 10 = ₹260)**

8. If each child spends ₹20 for snacks, how much total? **(Ans: 46 × 20 = ₹920)**
9. Total money spent = bus ₹3000 + boating ₹240 + snacks ₹920 = ? **(Ans: ₹4160)**
10. If total money collected was ₹4200, how much left? **(Ans: ₹4200 – ₹4160 = ₹40)**
11. If another bus was hired, total cost? **(Ans: 2 × 3000 = ₹6000)**
12. If 100 children go, how many buses? **(Ans: 2 buses)**
13. For 2 buses, total cost? **(Ans: 6000)**
14. If 2 children did not pay, how much shortage? **(Ans: 2 × 75 = ₹150)**
15. If fare per child reduced to ₹70, total collected? **(Ans: 46 × 70 = ₹3220)**
16. If they visited zoo at ₹15 each, cost for 50 people? **(Ans: 750)**
17. If lunch costs ₹30 each, total cost? **(Ans: 1500)**
18. Estimate: 46 children pay about ₹80. Around how much money? **(Ans: 46 × 80 ≈ 3680)**
19. Which is greater: estimated ₹3680 or exact ₹3450? **(Ans: Estimate bigger)**
20. Why is estimation helpful? **(Ans: Quick guess of total)**

Skill-Based Questions with Figures (20)

Use maps, tables, and simple child-friendly drawings.

1. Draw a **bus with 50 seats**. Shade 46 seats. How many empty? **(Ans: 4)**
2. Draw a **ticket showing ₹75**. How many such tickets for 46 children? **(Ans: 46)**
3. Draw a **chart**: Bus ₹3000, Boat ₹240, Food ₹920. Find total. **(Ans: ₹4160)**
4. Draw **4 boats** with 6 seats each. Fill all. How many children? **(Ans: 24)**
5. Draw 2 children without tickets. How many tickets sold now? **(Ans: 44)**
6. Draw a **pie chart**: Bus cost vs Boat cost vs Food. Which is biggest? **(Ans: Bus)**
7. Draw a **note of ₹100**. How many needed for ₹3000 bus fare? **(Ans: 30 notes)**
8. Draw **5 snack packets** costing ₹20 each. Total? **(Ans: 100)**
9. Draw **3 km road line**. Mark 1 km, 2 km, 3 km.
10. Draw **2 buses**. Write cost below: ₹6000.
11. Draw **1 metre scale**. Show 100 cm = 1 m.
12. Draw **bill board**: Bus = 3000, Boat = 240, Food = 920.
13. Draw a **table** with 4 groups of children. Each 12. Total? **(Ans: 48)**
14. Draw a **money box**. Put ₹3450 inside.
15. Draw a **lake** with 4 boats. Count children = 24.

16. Draw a **balance scale**: Left side bus ₹3000, right side boat+food ₹1160. Which heavier? **(Ans: Bus)**
17. Draw a **train ticket**: Write ₹60 per person.
18. Draw **2 notes of ₹2000**. Is it enough for bus? **(Ans: No, bus = 3000)**
19. Draw **10 notes of ₹100**. What is the value? **(Ans: 1000)**
20. Draw a **calendar**. Mark travel date.

Blueprint — Lesson 3: A Trip to Bhopal

Objective	No. of Questions	Marks	Difficulty Level
Knowledge	4	4	3 Easy, 1 Medium
Comprehension	3	4	2 Easy, 1 Medium
Application	2	4	1 Medium, 1 Hard
Skill (Figures)	1	3	1 Medium
TOTAL	**10**	**15**	**Easy 50% · Medium 35% · Hard 15%**

Model Question Paper – Lesson 3: A Trip to Bhopal
Class: 4 **Subject:** Mathematics
Max Marks: 15 **Time:** 25 minutes
Section A — Knowledge (4 × 1 = 4)

1. How many children went on the trip to Bhopal? **(Ans: 46)**
2. How many teachers went? **(Ans: 4)**
3. Total people on the trip? **(Ans: 50)**
4. How much did one boat ride cost per person? **(Ans: ₹10)**

Section B — Comprehension (2 × 2 = 4)

5. Why was only one bus needed for the trip?
   Ans: 50 people and 50 seats in the bus.
6. If 6 children can sit in one boat, how many boats for 24 children?
   Ans: 4 boats.

Section C — Application (2 × 2 = 4)

7. If each child paid ₹75, how much money collected from 46 children?
   Ans: 46 × 75 = ₹3450.
8. Bus fare = ₹3000. How much extra money collected?
   Ans: ₹3450 – ₹3000 = ₹450.

Section D — Skill (1 × 3 = 3)

9. Draw a bus with 50 seats. Shade 46.
   - How many seats are filled? **Ans: 46**
   - How many empty seats? **Ans: 4**

Lesson 4: Tick-Tick-Tick

Learning Outcomes

By the end of this lesson, children will be able to:

- Read the time to the hour, half-hour, quarter-hour, and minutes on an analog clock.
- Understand and use terms like morning, afternoon, evening, night, a.m. and p.m.
- Calculate the duration of events (start and end times).
- Solve real-life word problems involving time (travel, school, games, TV shows).
- Relate daily routine to time, using both 12-hour and 24-hour formats.

Knowledge Questions (20)

1. How many hands does a clock have? **(Ans: 3 – hour, minute, second)**
2. How many hours are there in a day? **(Ans: 24 hours)**
3. How many minutes make 1 hour? **(Ans: 60 minutes)**
4. How many seconds make 1 minute? **(Ans: 60 seconds)**
5. Which hand of the clock is the shortest? **(Ans: Hour hand)**
6. Which hand is the longest? **(Ans: Minute hand)**
7. Which hand moves fastest? **(Ans: Second hand)**
8. What is another name for 12 o'clock at night? **(Ans: Midnight)**
9. What is another name for 12 o'clock in the day? **(Ans: Noon)**
10. How many hours from 6 a.m. to 12 noon? **(Ans: 6 hours)**
11. What does "a.m." mean? **(Ans: Ante meridiem – before noon)**
12. What does "p.m." mean? **(Ans: Post meridiem – after noon)**
13. How many times does the hour hand go around in one day? **(Ans: 2 times)**
14. At what number does the minute hand point when it is half-past an hour? **(Ans: 6)**
15. At what number does the minute hand point when it is quarter past an hour? **(Ans: 3)**
16. At what number does the minute hand point when it is quarter to an hour? **(Ans: 9)**
17. How many hours are there between 2 p.m. and 6 p.m.? **(Ans: 4 hours)**
18. If the time is 5:30, where is the hour hand? **(Ans: Between 5 and 6)**

19. If the time is 9:00, where is the minute hand? **(Ans: At 12)**
20. How many hours are there in 2 days? **(Ans: 48 hours)**

Comprehension Questions (20)

1. Why do we need clocks? **(Ans: To know the time)**
2. If the hour hand is at 7 and minute hand at 12, what is the time? **(Ans: 7:00)**
3. If the hour hand is between 2 and 3 and the minute hand is at 6, what is the time? **(Ans: 2:30)**
4. If your school starts at 9 a.m. and ends at 3 p.m., how long are you in school? **(Ans: 6 hours)**
5. Why is it important to reach school on time? **(Ans: To attend morning assembly and classes)**
6. Which is earlier, 7 a.m. or 7 p.m.? **(Ans: 7 a.m.)**
7. Which is later, 10 a.m. or 10 p.m.? **(Ans: 10 p.m.)**
8. If your birthday party starts at 5 p.m. and ends at 8 p.m., how long was it? **(Ans: 3 hours)**
9. Why do railways and airlines use 24-hour clock? **(Ans: To avoid confusion)**
10. What time is written as 14:00 in 12-hour clock? **(Ans: 2:00 p.m.)**
11. What time is written as 21:00 in 12-hour clock? **(Ans: 9:00 p.m.)**
12. If the movie starts at 6:30 and ends at 8:30, what is the duration? **(Ans: 2 hours)**
13. Why do we divide the day into a.m. and p.m.? **(Ans: To separate morning and afternoon/evening times)**
14. If the clock shows 3:15, how do we say the time? **(Ans: Quarter past 3)**
15. If the clock shows 7:45, how do we say the time? **(Ans: Quarter to 8)**
16. Why does the hour hand move slower than the minute hand? **(Ans: Because it shows longer hours)**
17. If your cricket match starts at 4:00 p.m. and ends at 6:30 p.m., how long did you play? **(Ans: 2 hours 30 minutes)**
18. What is the difference between 12 a.m. and 12 p.m.? **(Ans: Midnight and noon)**
19. Why is it important to calculate time duration? **(Ans: To plan activities)**
20. If it is 10 p.m. now, what time will it be after 6 hours? **(Ans: 4 a.m.)**

Application Questions (20)

1. School starts at 8:30 a.m. and ends at 2:30 p.m. How many hours in school? **(Ans: 6 hours)**

2. A train leaves at 7:15 a.m. and reaches at 10:45 a.m. Journey time? **(Ans: 3 hours 30 minutes)**
3. The movie started at 5:45 p.m. and ended at 8:15 p.m. Duration? **(Ans: 2 hours 30 minutes)**
4. A bus left at 9:30 a.m. and reached at 1:00 p.m. How long was the trip? **(Ans: 3 hours 30 minutes)**
5. A cricket match starts at 2:15 p.m. and ends at 6:45 p.m. How long? **(Ans: 4 hours 30 minutes)**
6. Dinner starts at 8:00 p.m. and ends at 9:30 p.m. How long did it last? **(Ans: 1 hour 30 minutes)**
7. Your study time is 7:00 p.m. to 9:00 p.m. How many minutes do you study? **(Ans: 120 minutes)**
8. You sleep from 10:00 p.m. to 6:00 a.m. How long do you sleep? **(Ans: 8 hours)**
9. If the train arrives at 11:45 and leaves at 12:15, how long is the halt? **(Ans: 30 minutes)**
10. A shop opens at 10 a.m. and closes at 8 p.m. Total hours open? **(Ans: 10 hours)**
11. Your school bus takes 45 minutes to reach school. If you leave at 7:15, when do you reach? **(Ans: 8:00)**
12. If the bus leaves at 6:30 a.m. and journey is 2 hours, what time do you reach? **(Ans: 8:30 a.m.)**
13. If exam starts at 9:30 and ends at 12:00, duration? **(Ans: 2 hours 30 minutes)**
14. A TV show starts at 7:30 p.m. and ends at 8:00 p.m. How long? **(Ans: 30 minutes)**
15. If you start homework at 5:00 p.m. and finish at 6:15 p.m., how long did you take? **(Ans: 1 hour 15 minutes)**
16. A wedding starts at 6:00 p.m. and goes on till midnight. Duration? **(Ans: 6 hours)**
17. If it is 3:30 now, what time will it be after 2 hours 45 minutes? **(Ans: 6:15)**
18. If it is 11:15 now, what time was it 2 hours ago? **(Ans: 9:15)**
19. Your tuition is from 4:45 to 6:15. How long? **(Ans: 1 hour 30 minutes)**
20. If you catch a train at 22:30, what time is it in 12-hour format? **(Ans: 10:30 p.m.)**

Skill-Based Questions with Figures (20)

Use clock face drawings for practice.

1. Draw a clock showing **3:00**. What time is it? **(Ans: 3 o'clock)**
2. Draw a clock showing **6:30**. Say the time. **(Ans: Half past 6)**
3. Draw a clock showing **9:15**. What is the time? **(Ans: Quarter past 9)**

4. Draw a clock showing **7:45**. What is the time? **(Ans: Quarter to 8)**
5. Draw a clock showing **12:00**. Is it noon or midnight? **(Ans: Could be both)**
6. Draw a clock with hands at 10 and 12. What is the time? **(Ans: 10:00)**
7. Draw a clock showing 4:30. Which hand is between numbers? **(Ans: Hour hand between 4 and 5)**
8. Draw a clock showing 2:20. Where is the minute hand? **(Ans: On 4)**
9. Draw a clock showing 11:55. How many minutes to 12? **(Ans: 5 minutes)**
10. Draw a clock showing 5:10. Which hand points to 2? **(Ans: Minute hand)**
11. Draw a clock showing 8:45. How do you read it? **(Ans: Quarter to 9)**
12. Draw a clock showing 1:30. What time is it? **(Ans: Half past 1)**
13. Draw a clock with hour hand at 6 and minute at 12. **(Ans: 6:00)**
14. Draw a clock with hour at 9 and minute at 6. **(Ans: 9:30)**
15. Draw a clock with hour at 12 and minute at 3. **(Ans: 12:15)**
16. Draw a clock with hour at 4 and minute at 9. **(Ans: 4:45)**
17. Draw 2 clocks: one 7 a.m., one 7 p.m. What's the difference? **(Ans: Morning and evening)**
18. Draw a timetable: school 8:30–2:30. Duration? **(Ans: 6 hours)**
19. Draw daily routine: wake at 6:00, school at 8:30, lunch at 1:00.
20. Draw a railway timetable: departure 9:00, arrival 12:30. Duration? **(Ans: 3 hours 30 minutes)**

Blueprint — Lesson 4: Tick-Tick-Tick

Objective	No. of Questions	Marks	Difficulty Level
Knowledge	4	4	3 Easy, 1 Medium
Comprehension	3	4	2 Easy, 1 Medium
Application	2	4	1 Medium, 1 Hard
Skill (Figures)	1	3	1 Medium
TOTAL	**10**	**15**	**Easy 50% · Medium 35% · Hard 15%**

Model Question Paper – Lesson 4: Tick-Tick-Tick

Class: 4 **Subject:** Mathematics
Max Marks: 15 **Time:** 25 minutes

Section A — Knowledge (4 × 1 = 4)

1. How many minutes are there in an hour? **(Ans: 60)**
2. Which hand of the clock is the shortest? **(Ans: Hour hand)**
3. What time is shown when the hour hand is at 7 and minute hand at 12? **(Ans: 7:00)**
4. What is another name for 12 at night? **(Ans: Midnight)**

Section B — Comprehension (2 × 2 = 4)

5. Your school starts at 9 a.m. and ends at 3 p.m. How long are you in school?
   Ans: 6 hours.
6. If a cricket match starts at 4:00 p.m. and ends at 6:30 p.m., how long was it?
   Ans: 2 hours 30 minutes.

Section C — Application (2 × 2 = 4)

7. A train leaves at 7:15 a.m. and reaches at 10:45 a.m. How long was the journey?
   Ans: 3 hours 30 minutes.
8. A movie started at 5:45 p.m. and ended at 8:15 p.m. Find duration.
   Ans: 2 hours 30 minutes.

Section D — Skill (1 × 3 = 3)

9. Draw a clock showing 9:15.
   - I. How do we say the time? **Ans: Quarter past 9**
   - II. Where is the minute hand? **Ans: At 3**

Lesson 5: The Way the World Looks

Learning Outcomes

By the end of this lesson, children will be able to:

- **Identify top, front, and side views of familiar objects.**
- **Recognise 3-D shapes (cube, cuboid, cylinder, cone, sphere) and their 2-D views.**
- **Understand the difference between 2-D drawings and 3-D objects.**
- **Match objects with their shadows and views.**
- **Develop spatial imagination by drawing simple shapes and patterns.**

Knowledge Questions (20)

1. **Which view shows what an object looks like from above? (Ans: Top view)**
2. **Which view shows what an object looks like from the front side? (Ans: Front view)**
3. **A cube looks like which 2-D shape from the front? (Ans: Square)**
4. **A cuboid looks like which 2-D shape from the front? (Ans: Rectangle)**
5. **What shape does a ball look like? (Ans: Sphere)**
6. **Which solid shape looks like a brick? (Ans: Cuboid)**
7. **Which solid looks like an ice cream cone? (Ans: Cone)**
8. **Which solid looks like a tin can? (Ans: Cylinder)**
9. **Which solid has no flat face? (Ans: Sphere)**
10. **Which solid has only one curved face? (Ans: Sphere)**
11. **Which solid has one curved face and one flat face? (Ans: Cone)**
12. **A dice is shaped like a __? (Ans: Cube)**
13. **A box of chalk is shaped like a __? (Ans: Cylinder)**
14. **Which view of a table shows four legs? (Ans: Front/Side view)**
15. **Which view of a table shows only the top surface? (Ans: Top view)**
16. **Which view of a book shows its thickness? (Ans: Side view)**
17. **Which view of a car shows wheels clearly? (Ans: Side view)**
18. **What is the flat drawing of a solid shape called? (Ans: 2-D view)**

19. **What is the real object that can be touched called? (Ans: 3-D object)**
20. **Which view of a box shows its lid? (Ans: Top view)**

Comprehension Questions (20)

1. **Why does a cube look like a square from all sides? (Ans: All faces are squares)**
2. **Why does a cylinder look like a rectangle from the side? (Ans: Curved surface looks flat from side)**
3. **How does a ball look from top, front, and side views? (Ans: Circle in all views)**
4. **Why do objects look different from different sides? (Ans: Because we see different faces)**
5. **Which view of a glass shows it is hollow? (Ans: Top view)**
6. **Which view of a bicycle shows two wheels? (Ans: Side view)**
7. **Why does a cone look like a triangle from the side? (Ans: Its curved surface becomes flat in view)**
8. **If you see a chair from the top, what do you see? (Ans: Seat only)**
9. **Which view of a house shows its roof? (Ans: Top view)**
10. **Which view of a bus shows windows? (Ans: Side view)**
11. **Which view of a bus shows only the driver's seat and front glass? (Ans: Front view)**
12. **Why do architects draw top and side views of houses? (Ans: To plan correctly)**
13. **Which view of a cupboard shows doors? (Ans: Front view)**
14. **Which view of a cupboard shows shelves? (Ans: Side or inside view)**
15. **Why does a box look like a rectangle from the side and square from the front? (Ans: Different faces are different shapes)**
16. **Which view of a cylinder shows a circle? (Ans: Top view)**
17. **Which view of a cone shows a circle? (Ans: Top view)**
18. **Which view of a cone shows a triangle? (Ans: Side view)**
19. **Which view of a car shows headlights? (Ans: Front view)**
20. **Which view of a tree shows only a circle? (Ans: Top view)**

Application Questions (20)

1. **A cube has 6 square faces. Draw 2 different views.**
   (Ans: Square from top, square from front)
2. **A cuboid has 6 faces. Which views look rectangular? (Ans: All except square faces)**
3. **A cone is kept upside down. Which view shows the circular base? (Ans: Top view)**
4. **If you draw a ball from the front, which shape do you make? (Ans: Circle)**
5. **If a bus has 40 windows, which view shows them? (Ans: Side view)**
6. **A ladder is placed against a wall. Which view shows slant line? (Ans: Side view)**
7. **A glass looks like a circle from above and rectangle from side. Why? (Ans: Different faces)**
8. **A dice shows number 5 on top. Which view is this? (Ans: Top view)**
9. **Draw a house. Which view shows door and windows? (Ans: Front view)**
10. **Which view of a pencil box shows its opening? (Ans: Top view)**
11. **Which view of a bus shows both front glass and headlights? (Ans: Front view)**
12. **Which view of a bed shows pillow? (Ans: Top view)**
13. **Which view of a chair shows legs? (Ans: Side/front view)**
14. **Which view of a tree shows leaves spread? (Ans: Top view)**
15. **Which view of a bottle shows its cap? (Ans: Top view)**
16. **Which view of a cylinder shows a rectangle? (Ans: Side view)**
17. **Which view of a cone shows a triangle? (Ans: Side view)**
18. **Which view of a cone shows a point? (Ans: Top view, if tip up)**
19. **Which view of a TV shows screen? (Ans: Front view)**
20. **Which view of a plate shows a circle? (Ans: Top view)**

Skill-Based Questions with Figures (20)

Figures can be drawn on board or worksheets.

1. **Draw a dice (cube). Show top, front, and side views.**
2. **Draw a bus. Mark its top, side, and front views.**
3. **Draw a table. Show top (rectangle), side (rectangle with 4 legs).**
4. **Draw a book. Show front cover and thickness (side).**

5. **Draw a cone (ice cream). Show circle (top) and triangle (side).**
6. **Draw a ball. Show circle from top, front, side.**
7. **Draw a cylinder (tin can). Show circle (top), rectangle (side).**
8. **Draw a house. Show roof in top view, windows in front view.**
9. **Draw a chair. Show seat (top), legs (side).**
10. **Draw a cup. Show circle (top), rectangle (side).**
11. **Draw a ladder against wall. Show slant line (side view).**
12. **Draw a train. Show windows in side view, engine in front view.**
13. **Draw a fan. Show circle with blades (top view).**
14. **Draw a clock. Show circle with hands (front view).**
15. **Draw a tree. Show circle (top view), trunk (front view).**
16. **Draw a car. Show headlights (front), doors (side).**
17. **Draw a pencil. Show circle (top), rectangle (side).**
18. **Draw a mobile phone. Show screen (front), thickness (side).**
19. **Draw a plate. Show circle (top view).**
20. **Draw a sofa. Show cushions (front view).**

Blueprint — Lesson 5: The Way the World Looks

Objective	No. of Questions	Marks	Difficulty Level
Knowledge	4	4	3 Easy, 1 Medium
Comprehension	3	4	2 Easy, 1 Medium
Application	2	4	1 Medium, 1 Hard
Skill (Figures)	1	3	1 Medium
TOTAL	10	15	Easy 50% · Medium 35% · Hard 15%

Model Question Paper – Lesson 5: The Way the World Looks

Class: 4   Subject: Mathematics
Max Marks: 15   Time: 25 minutes

Section A — Knowledge (4 × 1 = 4)

1. **Which view shows an object from above? (Ans: Top view)**
2. **A dice is shaped like a ___? (Ans: Cube)**
3. **Which solid looks like a ball? (Ans: Sphere)**
4. **Which view of a table shows only its top surface? (Ans: Top view)**

Section B — Comprehension (2 × 2 = 4)

5. **Why does a cylinder look like a rectangle from the side?**
   Ans: Its curved surface looks flat from side view.
6. **Which view of a bicycle shows both wheels?**
   Ans: Side view.

Section C — Application (2 × 2 = 4)

7. **A bus has 40 windows. Which view will show them clearly?**
   Ans: Side view.
8. **A glass looks like a circle from above and rectangle from side. Why?**
   Ans: Different faces – top circular base, side curved face.

Section D — Skill (1 × 3 = 3)

9. **Draw a cone. Show:**
   - **Top view = circle**
   - **Side view = triangle**
   - **Front view = triangle**

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Lesson 6: The Junk Seller

Learning Outcomes

By the end of this lesson, children will be able to:

- Recognise currency notes and coins and their values.
- Perform addition and subtraction of money.
- Apply multiplication and division in money-related problems.
- Solve word problems involving buying and selling.
- Understand profit and loss in simple contexts.

Knowledge Questions (20)

1. Which symbol is used for the Indian currency? **(Ans: ₹)**
2. How many paise make 1 rupee? **(Ans: 100 paise)**
3. How many ₹10 notes make ₹100? **(Ans: 10 notes)**
4. How many ₹50 notes make ₹500? **(Ans: 10 notes)**
5. What is the value of 5 coins of ₹2? **(Ans: ₹10)**
6. Which is more: ₹500 note or five ₹100 notes? **(Ans: Both equal)**
7. How many ₹20 notes make ₹200? **(Ans: 10)**
8. How many ₹100 notes make ₹1000? **(Ans: 10)**
9. What is the smallest coin in India now? **(Ans: 50 paise/₹1 coin depending on usage)**
10. Which note is bigger in value: ₹200 or ₹500? **(Ans: ₹500)**
11. What is the value of 12 coins of ₹5 each? **(Ans: ₹60)**
12. Which is greater: 7 × ₹10 or 5 × ₹20? **(Ans: Both = ₹70, equal)**
13. A ₹2000 note is equal to how many ₹500 notes? **(Ans: 4)**
14. Which coin is round and silver in colour (common)? **(Ans: ₹2 or ₹5 coin)**
15. Which note is green in colour and worth ₹100? **(Ans: ₹100 note)**
16. Which note has a picture of Mahatma Gandhi? **(Ans: All rupee notes)**
17. How many coins of ₹10 make ₹100? **(Ans: 10 coins)**
18. If you have 3 notes of ₹50, how much money? **(Ans: ₹150)**
19. Which note is orange in colour? **(Ans: ₹200 note)**

20. What is the value of 4 notes of ₹500? **(Ans: ₹2000)**

Comprehension Questions (20)

1. Why do we use money? **(Ans: To buy and sell things)**
2. If you buy a toy for ₹40 and pay with a ₹50 note, how much change do you get? **(Ans: ₹10)**
3. Which is cheaper: a ball for ₹45 or a bat for ₹60? **(Ans: Ball)**
4. Why do we prefer notes for big amounts? **(Ans: Easier to carry)**
5. If you have ₹100 and spend ₹75, how much left? **(Ans: ₹25)**
6. Why should we check change after shopping? **(Ans: To avoid mistakes)**
7. If you give shopkeeper ₹500 for items worth ₹375, how much change? **(Ans: ₹125)**
8. If 10 bananas cost ₹30, how much for 1 banana? **(Ans: ₹3)**
9. Why is profit important for a seller? **(Ans: To earn money)**
10. If a pen costs ₹12 and a notebook costs ₹20, what is total? **(Ans: ₹32)**
11. If you buy a toy for ₹50 and sell for ₹60, what is profit? **(Ans: ₹10)**
12. If you buy a bottle for ₹40 and sell for ₹35, what is loss? **(Ans: ₹5)**
13. Which is more: 5 coins of ₹5 or 2 notes of ₹20? **(Ans: ₹25 > ₹40, so notes)**
14. Why do junk sellers buy old items cheaply? **(Ans: To sell for profit)**
15. If a kilo of paper costs ₹5, how much for 3 kilos? **(Ans: ₹15)**
16. If 2 kg of iron costs ₹18, what is cost of 1 kg? **(Ans: ₹9)**
17. If a junk seller buys 10 kg paper at ₹2 per kg, total cost? **(Ans: ₹20)**
18. If he sells same 10 kg at ₹4 per kg, how much he gets? **(Ans: ₹40)**
19. What is his profit in above case? **(Ans: ₹20)**
20. Why should buyers compare prices before buying? **(Ans: To save money)**

Application Questions (20)

1. A junk seller bought 5 kg iron at ₹8 per kg. Find cost. **(Ans: ₹40)**
2. He sold same iron at ₹10 per kg. Find selling price. **(Ans: ₹50)**
3. Profit = ? **(Ans: ₹10)**
4. He bought 12 kg paper at ₹3 per kg. Find cost. **(Ans: ₹36)**
5. He sold it at ₹5 per kg. Find selling price. **(Ans: ₹60)**

6. Profit = ? **(Ans: ₹24)**
7. If 1 bottle costs ₹7, how much for 8 bottles? **(Ans: ₹56)**
8. If he sells same bottles at ₹10 each, total selling price? **(Ans: ₹80)**
9. Profit = ? **(Ans: ₹24)**
10. A seller buys a fan for ₹450, sells at ₹500. Profit? **(Ans: ₹50)**
11. A seller buys a chair for ₹800, sells at ₹700. Loss? **(Ans: ₹100)**
12. 15 kg plastic costs ₹12 per kg. Total cost? **(Ans: ₹180)**
13. Sells at ₹15 per kg. Selling price? **(Ans: ₹225)**
14. Profit? **(Ans: ₹45)**
15. A junk seller bought old books ₹100, sold at ₹120. Profit? **(Ans: ₹20)**
16. If profit = selling price – cost price, what is loss formula? **(Ans: Cost price – selling price)**
17. A junk seller buys 5 old toys for ₹50. He sells at ₹15 each. Profit? **(Ans: 75–50=₹25)**
18. A bag of iron costs ₹90. Sold at ₹120. Profit? **(Ans: ₹30)**
19. A bag of paper costs ₹60. Sold at ₹45. Loss? **(Ans: ₹15)**
20. Which is better for seller: profit or loss? **(Ans: Profit)**

Skill-Based Questions with Figures (20)

Figures like coins, notes, and balance scales should be drawn for practice.

1. Draw 5 coins of ₹2 each. Count total. **(Ans: ₹10)**
2. Draw 10 notes of ₹10. Count total. **(Ans: ₹100)**
3. Draw a ₹50 note and a ₹20 note. Add total. **(Ans: ₹70)**
4. Draw 3 coins of ₹5 each. Add total. **(Ans: ₹15)**
5. Draw 4 notes of ₹100 each. Add total. **(Ans: ₹400)**
6. Draw 2 notes of ₹200 each. Add total. **(Ans: ₹400)**
7. Draw 1 note of ₹500 and 1 note of ₹200. Add. **(Ans: ₹700)**
8. Draw 5 coins of ₹10 each. Add. **(Ans: ₹50)**
9. Draw items: Book ₹20, Pen ₹10. Show total. **(Ans: ₹30)**
10. Draw items: Bag ₹100, Bottle ₹40. Show total. **(Ans: ₹140)**
11. Draw old newspapers 10 kg at ₹5 per kg. Show cost. **(Ans: ₹50)**

12. Draw junk items: plastic bottles 8 × ₹6. Total? **(Ans: ₹48)**
13. Draw balance scale: Left side ₹50, right side two ₹20 notes + one ₹10 note. Equal? **(Ans: Yes, both ₹50)**
14. Draw ₹100 note and 10 coins of ₹10. Compare. **(Ans: Equal)**
15. Draw 2 notes of ₹200 and 4 notes of ₹100. Which is more? **(Ans: Equal, ₹400)**
16. Draw 1 note of ₹500 and 5 notes of ₹100. Which is more? **(Ans: Equal, ₹500)**
17. Draw coins worth ₹25 in 5-rupee coins. **(Ans: 5 coins)**
18. Draw a ₹2000 note. Show how many ₹500 notes equal it. **(Ans: 4)**
19. Draw 2 items: cost price ₹40, selling price ₹60. Mark profit. **(Ans: ₹20)**
20. Draw 2 items: cost price ₹70, selling price ₹60. Mark loss. **(Ans: ₹10)**

Blueprint — Lesson 6: The Junk Seller

Objective	No. of Questions	Marks	Difficulty Level
Knowledge	4	4	3 Easy, 1 Medium
Comprehension	3	4	2 Easy, 1 Medium
Application	2	4	1 Medium, 1 Hard
Skill (Figures)	1	3	1 Medium
TOTAL	**10**	**15**	**Easy 50% · Medium 35% · Hard 15%**

Model Question Paper – Lesson 6: The Junk Seller

Class: 4 **Subject:** Mathematics
Max Marks: 15 **Time:** 25 minutes

Section A — Knowledge (4 × 1 = 4)

1. Which symbol is used for Indian money? **(Ans: ₹)**
2. How many paise make 1 rupee? **(Ans: 100)**
3. What is the value of 5 coins of ₹10 each? **(Ans: ₹50)**
4. How many ₹100 notes make ₹500? **(Ans: 5)**

Section B — Comprehension (2 × 2 = 4)

5. If you buy a toy for ₹40 and pay with a ₹50 note, how much change should you get?
Ans: ₹10.

6. If a pen costs ₹12 and a notebook ₹20, what is the total cost?
   Ans: ₹32.

Section C — Application (2 × 2 = 4)

7. A junk seller buys 10 kg paper at ₹3 per kg. How much does he pay?
   Ans: 10 × 3 = ₹30.

8. He sells it at ₹5 per kg. How much does he get? What is profit?
   Ans: 10 × 5 = ₹50; Profit = ₹20.

Section D — Skill (1 × 3 = 3)

9. Draw 5 coins of ₹2 each.
   - Total value? **Ans: ₹10**

Lesson 7: Jugs and Mugs

Learning Outcomes

By the end of this lesson, children will be able to:

- Identify standard units of capacity (millilitres, litres).
- Compare and estimate capacities of different containers.
- Add, subtract, multiply, and divide using capacity units.
- Solve word problems involving capacity (buying milk, filling bottles, etc.).
- Use simple drawings of jugs, mugs, and bottles to explain measurement.

Knowledge Questions (20)

1. What is the standard unit of measuring capacity? **(Ans: Litre)**
2. 1 litre = how many millilitres? **(Ans: 1000 ml)**
3. Which is bigger – litre or millilitre? **(Ans: Litre)**
4. How many millilitres make half a litre? **(Ans: 500 ml)**
5. How many millilitres make a quarter litre? **(Ans: 250 ml)**
6. What do we use to measure milk? **(Ans: Litre or ml)**
7. Which is more: 2 litres or 2000 ml? **(Ans: Equal)**
8. What is used to measure medicine drops? **(Ans: Millilitres)**
9. What is used to measure petrol in vehicles? **(Ans: Litres)**
10. What is capacity? **(Ans: Amount a container can hold)**
11. A mug holds about 250 ml. How many mugs make 1 litre? **(Ans: 4 mugs)**
12. Which container holds more – jug or mug? **(Ans: Jug)**
13. How many litres make 5 litres? **(Ans: 5)**
14. How many half litres make 1 litre? **(Ans: 2 halves)**
15. 3 quarters of a litre = how many ml? **(Ans: 750 ml)**
16. A bottle of cold drink usually has how much? **(Ans: 1 litre or 500 ml)**
17. A teaspoon holds about how much? **(Ans: 5 ml)**
18. Which unit is best to measure a swimming pool? **(Ans: Litres/kilolitres)**
19. Which unit is best to measure a drop of water? **(Ans: Millilitres)**

20. How many ml in 2 litres? **(Ans: 2000 ml)**

Comprehension Questions (20)

1. Why do we use litres and ml for liquids? **(Ans: They flow and can be poured into containers)**
2. Which container will hold more – a glass or a bucket? **(Ans: Bucket)**
3. Why do we not use cm or kg for liquids? **(Ans: Wrong units)**
4. Why do shopkeepers sell oil in litres, not grams? **(Ans: Oil is liquid, measured in litres)**
5. Which is heavier – 1 litre of water or 1 litre of milk? **(Ans: Nearly same, milk a bit heavier)**
6. Which is bigger – 750 ml or 1 litre? **(Ans: 1 litre)**
7. Which is smaller – 250 ml or 1 litre? **(Ans: 250 ml)**
8. Why are medicine bottles marked in ml? **(Ans: Medicine amounts are small)**
9. A 2-litre bottle can fill how many 250 ml glasses? **(Ans: 8 glasses)**
10. Which will fill more glasses – 1 jug of 2 litres or 1 jug of 1 litre? **(Ans: 2-litre jug)**
11. Which is cheaper: buying 4 small 250 ml bottles or 1 one-litre bottle (if price same per litre)? **(Ans: Same)**
12. Why do cold drink bottles have markings like 500 ml, 1 L, 2 L? **(Ans: To show how much liquid inside)**
13. A 1-litre jug can fill 2 half-litre bottles. Why? **(Ans: 2 × 500 ml = 1000 ml)**
14. A mug holds 250 ml. How many mugs fill 2 litres? **(Ans: 8 mugs)**
15. A teaspoon is about 5 ml. How many spoons in 1 litre? **(Ans: 200 spoons)**
16. A bucket holds 15 L. How many 5 L cans fill it? **(Ans: 3 cans)**
17. Which is bigger: 1500 ml or 1 L 200 ml? **(Ans: 1500 ml > 1200 ml)**
18. Why is it better to estimate before pouring? **(Ans: To avoid spilling)**
19. Why do we measure milk in litres, not cups? **(Ans: Standard unit)**
20. Which is smaller: 2 L or 2500 ml? **(Ans: 2500 ml > 2 L)**

Application Questions (20)

1. A milkman sells 3 litres of milk daily. How many litres in 10 days? **(Ans: 30 L)**
2. A jug has 2 litres. How many 250 ml glasses can it fill? **(Ans: 8 glasses)**

3. A bucket holds 12 litres. How many 2-litre bottles fill it? **(Ans: 6 bottles)**
4. A bottle has 750 ml juice. How many such bottles for 3 L? **(Ans: 4 bottles)**
5. A can has 5 litres. How many 1-litre bottles can be filled? **(Ans: 5)**
6. A mug holds 200 ml. How many mugs make 1 L? **(Ans: 5 mugs)**
7. A jar has 2.5 L oil. Write in ml. **(Ans: 2500 ml)**
8. A family drinks 6 glasses of milk daily. Each glass 250 ml. Total? **(Ans: 1500 ml = 1.5 L)**
9. A cold drink bottle is 2 L. How many 500 ml bottles equal it? **(Ans: 4 bottles)**
10. A tank has 100 L. How many 10 L buckets fill it? **(Ans: 10 buckets)**
11. If 1 L water costs ₹20, what is cost of 5 L? **(Ans: ₹100)**
12. If 250 ml juice costs ₹10, what is cost of 1 L? **(Ans: ₹40)**
13. A bottle has 1.5 L oil. Convert into ml. **(Ans: 1500 ml)**
14. A child drank 3 mugs of juice. Each mug = 200 ml. Total? **(Ans: 600 ml)**
15. A teacher bought 5 L milk. Each child gets 250 ml. How many children get milk? **(Ans: 20)**
16. A 20 L can of petrol fills how many 2 L bottles? **(Ans: 10)**
17. A jug has 3 L water. A bucket has 15 L. How many jugs fill the bucket? **(Ans: 5)**
18. A can has 4 L juice. 1 glass = 250 ml. How many glasses? **(Ans: 16 glasses)**
19. A tank has 500 L water. How many 50 L cans fill it? **(Ans: 10)**
20. A man bought 3 bottles of 750 ml oil. Total oil? **(Ans: 2250 ml = 2.25 L)**

Skill-Based Questions with Figures (20)

Use simple drawings: bottles, jugs, mugs, glasses.

1. Draw 1 L bottle. Write 1000 ml.
2. Draw 2 bottles of 500 ml each. Total? **(Ans: 1000 ml)**
3. Draw 4 glasses of 250 ml. Total? **(Ans: 1 L)**
4. Draw a jug of 2 L. How many 500 ml bottles fill it? **(Ans: 4)**
5. Draw a bucket of 10 L. How many 1 L bottles fill it? **(Ans: 10)**
6. Draw 5 mugs of 200 ml. Total? **(Ans: 1 L)**
7. Draw 2 bottles of 750 ml. Total? **(Ans: 1500 ml)**

8. Draw 4 cups of 250 ml each. Total? **(Ans: 1 L)**
9. Draw 3 spoons of 5 ml each. Total? **(Ans: 15 ml)**
10. Draw 2 jugs of 2 L each. Total? **(Ans: 4 L)**
11. Draw a 20 L can. Write how many 5 L cans inside? **(Ans: 4)**
12. Draw 3 glasses of 150 ml. Total? **(Ans: 450 ml)**
13. Draw 1 bottle of 1.5 L. Convert to ml. **(Ans: 1500 ml)**
14. Draw a medicine bottle 100 ml. How many to make 1 L? **(Ans: 10)**
15. Draw a tea cup of 250 ml. How many cups make 2 L? **(Ans: 8)**
16. Draw 2 bottles of 2 L each. Total? **(Ans: 4 L)**
17. Draw 3 buckets of 15 L each. Total? **(Ans: 45 L)**
18. Draw 4 glasses of 200 ml each. Total? **(Ans: 800 ml)**
19. Draw 5 small bottles of 100 ml each. Total? **(Ans: 500 ml)**
20. Draw 2 mugs of 400 ml each. Total? **(Ans: 800 ml)**

Blueprint — Lesson 7: Jugs and Mugs

Objective	No. of Questions	Marks	Difficulty Level
Knowledge	4	4	3 Easy, 1 Medium
Comprehension	3	4	2 Easy, 1 Medium
Application	2	4	1 Medium, 1 Hard
Skill (Figures)	1	3	1 Medium
TOTAL	**10**	**15**	**Easy 50% · Medium 35% · Hard 15%**

Model Question Paper – Lesson 7: Jugs and Mugs

Class: 4 **Subject:** Mathematics
Max Marks: 15 **Time:** 25 minutes

Section A — Knowledge (4 × 1 = 4)

1. 1 litre = how many millilitres? **(Ans: 1000 ml)**
2. How many ml in half a litre? **(Ans: 500 ml)**
3. A mug holds 250 ml. How many mugs in 1 litre? **(Ans: 4)**

4. Which unit is used to measure petrol? **(Ans: Litres)**

Section B — Comprehension (2 × 2 = 4)

5. Why do we use ml for medicine bottles?
   Ans: Because amounts are small.

6. A 2 L jug can fill how many 250 ml glasses?
   Ans: 8 glasses.

Section C — Application (2 × 2 = 4)

7. A family drinks 6 glasses of milk daily. Each glass = 250 ml. How much milk in total?
   Ans: 6 × 250 ml = 1500 ml = 1.5 L.

8. A bucket holds 12 L water. How many 2 L bottles fill it?
   Ans: 12 ÷ 2 = 6 bottles.

Section D — Skill (1 × 3 = 3)

9. Draw 4 glasses of 250 ml each.
   - What is total capacity? **Ans: 1 litre (1000 ml)**

Lesson 8: Carts and Wheels

Learning Outcomes

By the end of this lesson, children will be able to:

- Recognise and describe circles and their parts (centre, radius, diameter).
- Understand the relationship between radius and diameter.
- Draw circles using a compass and identify real-life circular objects.
- Recognise patterns using wheels and circular shapes.
- Apply circle knowledge to simple problem-solving situations.

Knowledge Questions (20)

1. What shape is a wheel? **(Ans: Circle)**
2. What is the centre of a circle? **(Ans: Middle point of the circle)**
3. What is the line from centre to boundary called? **(Ans: Radius)**
4. What is the line passing through the centre, touching two points of boundary called? **(Ans: Diameter)**
5. How many radii make a diameter? **(Ans: 2 radii)**
6. Which is longer: radius or diameter? **(Ans: Diameter)**
7. What instrument is used to draw a circle? **(Ans: Compass)**
8. Which shape is made when a wheel rolls? **(Ans: Circle pattern)**
9. Which part of a circle is half of diameter? **(Ans: Radius)**
10. How many centres does a circle have? **(Ans: One)**
11. Which is a real-life example of a circle? **(Ans: Coin, plate, wheel)**
12. What do we call half of a circle? **(Ans: Semi-circle)**
13. What do we call one-fourth of a circle? **(Ans: Quarter circle)**
14. What do we call the line around the circle? **(Ans: Circumference)**
15. What do we call the distance around the wheel? **(Ans: Circumference)**
16. Which shape do we get when looking at the top of a glass? **(Ans: Circle)**
17. Which is greater: diameter or radius? **(Ans: Diameter)**

18. 2 × radius = ? **(Ans: Diameter)**
19. ½ × diameter = ? **(Ans: Radius)**
20. Which is the round shape with no sides or corners? **(Ans: Circle)**

Comprehension Questions (20)

1. Why does a wheel leave a round mark on the ground? **(Ans: Because it is circular)**
2. Why is diameter always double the radius? **(Ans: Diameter = 2 × radius)**
3. Why does a coin look circular from all sides? **(Ans: All boundary points equal distance from centre)**
4. Which is bigger: circle with 3 cm radius or 4 cm radius? **(Ans: 4 cm radius)**
5. Why does the hour hand move less distance than the minute hand? **(Ans: Minute hand is longer)**
6. Which will roll better, a cube or a wheel? Why? **(Ans: Wheel, because it is round)**
7. Why is a circular wheel better than a square wheel? **(Ans: Rolls smoothly)**
8. Why do bicycle wheels leave thin round tracks? **(Ans: Because tyres are circular)**
9. Why do we see many circles in a clock? **(Ans: Outer frame, numbers, dial)**
10. A semi-circle is what part of a circle? **(Ans: Half)**
11. If a diameter is 6 cm, what is the radius? **(Ans: 3 cm)**
12. If a radius is 7 cm, what is the diameter? **(Ans: 14 cm)**
13. Why is the centre important in a circle? **(Ans: All points are equal distance from it)**
14. Why do carts have wheels instead of cubes? **(Ans: Easier to move)**
15. Which will cover more ground: wheel of diameter 1 m or 2 m? **(Ans: 2 m wheel)**
16. Which is larger: two semicircles or one circle? **(Ans: Equal)**
17. Why do we say a pizza is circular? **(Ans: Shape of its boundary is round)**
18. Which circle is bigger: coin or bucket top? **(Ans: Bucket top)**
19. Why do manhole covers use circles, not squares? **(Ans: They don’t fall inside, easy to roll)**
20. How many quarter circles make a full circle? **(Ans: 4)**

Application Questions (20)

1. A circle has radius 5 cm. Find diameter. **(Ans: 10 cm)**

2. A circle has diameter 14 cm. Find radius. **(Ans: 7 cm)**
3. A wheel makes 10 rounds. If diameter is 2 m, how much distance covered? **(Ans: 20 m approx, 10 × 2 m)**
4. A circular park has diameter 40 m. What is radius? **(Ans: 20 m)**
5. A coin has radius 1 cm. What is its diameter? **(Ans: 2 cm)**
6. A pizza has diameter 8 cm. What is radius? **(Ans: 4 cm)**
7. A circle of radius 3 cm is drawn. Draw another of double radius. What is new radius? **(Ans: 6 cm)**
8. A semicircle is cut from a circle of diameter 10 cm. What is radius? **(Ans: 5 cm)**
9. A circular plate has radius 7 cm. What is its diameter? **(Ans: 14 cm)**
10. If wheel turns once, it covers length equal to diameter (approx). If wheel = 70 cm diameter, what distance covered in 1 turn? **(Ans: 70 cm)**
11. A bicycle wheel has radius 35 cm. Diameter? **(Ans: 70 cm)**
12. A glass has top diameter 8 cm. What is radius? **(Ans: 4 cm)**
13. A cap has circular base of radius 6 cm. Diameter? **(Ans: 12 cm)**
14. A pot has circular mouth 20 cm diameter. Radius? **(Ans: 10 cm)**
15. A fan has circular blades radius 25 cm. Diameter? **(Ans: 50 cm)**
16. A pizza cut into 4 slices. Each slice is what part? **(Ans: Quarter)**
17. A circle of radius 10 cm. What is double diameter? **(Ans: 20 cm)**
18. A cycle wheel rotates 5 times. If diameter = 1 m, distance covered? **(Ans: 5 m)**
19. A bucket top radius 15 cm. Diameter? **(Ans: 30 cm)**
20. A CD has radius 6 cm. Diameter? **(Ans: 12 cm)**

Skill-Based Questions with Figures (20)

Use circles, wheels, and simple sketches.

1. Draw a circle of radius 3 cm with compass. Mark centre.
2. Draw a circle. Mark radius with a line.
3. Draw a circle. Mark diameter.
4. Draw two circles: radius 2 cm, 4 cm. Which is bigger?
5. Draw a pizza cut into 2 equal parts. What is each part? **(Ans: Semi-circle)**

6. Draw a pizza cut into 4 equal parts. What is each? **(Ans: Quarter)**
7. Draw a wheel. Show centre, radius, diameter.
8. Draw a cycle wheel. Mark spokes as radii.
9. Draw a coin. Write "radius = 1 cm".
10. Draw a clock. Mark it as a circle.
11. Draw a CD. Show its circular shape.
12. Draw a manhole cover (circle). Write why safe. **(Ans: Circle doesn't fall in)**
13. Draw 2 wheels of cart. Which is bigger?
14. Draw a circular plate. Divide into 2 parts.
15. Draw a fan top view (circle with blades).
16. Draw a glass top view (circle).
17. Draw a round ball (circle).
18. Draw 3 circles with radius 1, 2, 3 cm. Compare.
19. Draw circle of radius 5 cm. Mark two diameters.
20. Draw 4 quarter circles. Join to form 1 circle.

Blueprint — Lesson 8: Carts and Wheels

Objective	No. of Questions	Marks	Difficulty Level
Knowledge	4	4	3 Easy, 1 Medium
Comprehension	3	4	2 Easy, 1 Medium
Application	2	4	1 Medium, 1 Hard
Skill (Figures)	1	3	1 Medium
TOTAL	**10**	**15**	**Easy 50% · Medium 35% · Hard 15%**

Model Question Paper – Lesson 8: Carts and Wheels

Class: 4 **Subject:** Mathematics
Max Marks: 15 **Time:** 25 minutes

Section A — Knowledge (4 × 1 = 4)

1. What shape is a wheel? **(Ans: Circle)**
2. What is the line from centre to boundary called? **(Ans: Radius)**
3. How many radii make a diameter? **(Ans: 2)**
4. Which instrument is used to draw circles? **(Ans: Compass)**

Section B — Comprehension (2 × 2 = 4)

5. Why does a wheel roll smoothly but a cube does not?
   Ans: A wheel is round; cube has corners.
6. If a circle has diameter 6 cm, what is its radius?
   Ans: 3 cm.

Section C — Application (2 × 2 = 4)

7. A coin has radius 2 cm. What is its diameter?
   Ans: 4 cm.
8. A wheel of diameter 1 m rotates 5 times. What distance does it cover?
   Ans: 5 m.

Section D — Skill (1 × 3 = 3)

9. Draw a circle of radius 4 cm.
   - Mark centre. 2. Show one radius and one diameter.

Lesson 9: Halves and Quarters

Learning Outcomes

By the end of this lesson, children will be able to:

- Understand the concept of halves (½), quarters (¼), and other simple fractions.
- Represent fractions using shaded parts of figures.
- Identify fractions in real-life contexts (pizza, roti, chocolate bar, money).
- Compare and apply fractions in problem-solving.
- Develop fraction sense through pictures and sharing activities.

Knowledge Questions (20)

1. What is half of 1? **(Ans: ½)**
2. What is one quarter of 1? **(Ans: ¼)**
3. How many halves make a whole? **(Ans: 2 halves)**
4. How many quarters make a whole? **(Ans: 4 quarters)**
5. Which is bigger: half or quarter? **(Ans: Half)**
6. 2 quarters = ? **(Ans: ½)**
7. 3 quarters = ? **(Ans: ¾)**
8. What fraction of a rupee is 50 paise? **(Ans: ½)**
9. What fraction of a rupee is 25 paise? **(Ans: ¼)**
10. 75 paise is what fraction of 1 rupee? **(Ans: ¾)**
11. What fraction is shaded if 1 out of 2 equal parts is coloured? **(Ans: ½)**
12. What fraction is shaded if 1 out of 4 equal parts is coloured? **(Ans: ¼)**
13. Which is smaller: ¼ or ½? **(Ans: ¼)**
14. How many ¼ are there in 2 wholes? **(Ans: 8 quarters)**
15. How many ½ are there in 3 wholes? **(Ans: 6 halves)**
16. What is ½ of 8? **(Ans: 4)**
17. What is ¼ of 12? **(Ans: 3)**

18. Which is bigger: ¾ or ½? **(Ans: ¾)**
19. How many ½ make 2? **(Ans: 4 halves)**
20. How many ¼ make 3? **(Ans: 12 quarters)**

Comprehension Questions (20)

1. Why do we cut a shape into equal parts for fractions? **(Ans: Fractions need equal parts)**
2. If a pizza is cut into 2 equal pieces, what is each piece called? **(Ans: Half)**
3. If a roti is cut into 4 equal pieces, what is each called? **(Ans: Quarter)**
4. Why is ½ bigger than ¼? **(Ans: Half covers more than quarter)**
5. If 2 children share 1 chocolate equally, what does each get? **(Ans: ½)**
6. If 4 children share 1 chocolate equally, what does each get? **(Ans: ¼)**
7. Why do we say 50 paise is half of a rupee? **(Ans: Because 1 rupee = 100 paise, half = 50 paise)**
8. Why do we say 25 paise is quarter of a rupee? **(Ans: 100 ÷ 4 = 25)**
9. Which is more: 3 quarters of a chocolate or half a chocolate? **(Ans: 3 quarters)**
10. Which is less: 1 quarter of cake or half of cake? **(Ans: 1 quarter)**
11. Why are fractions useful in sharing things? **(Ans: For fair division)**
12. How many halves are there in 2 chocolates? **(Ans: 4 halves)**
13. How many quarters are there in 3 chapatis? **(Ans: 12 quarters)**
14. Which is larger: 2/4 or ½? **(Ans: Equal)**
15. If you eat 1 out of 4 equal slices of pizza, what fraction eaten? **(Ans: ¼)**
16. If you eat 2 out of 4 equal slices, what fraction eaten? **(Ans: ½)**
17. Why is ¾ almost a whole? **(Ans: Because 3 out of 4 parts are taken)**
18. How many ½ are there in 5 rupees (in ₹1 coins)? **(Ans: 10 halves)**
19. Which is more: 2 quarters or 1 half? **(Ans: Equal)**
20. Why should we write fractions with numerator and denominator? **(Ans: To show part/whole clearly)**

Application Questions (20)

1. Half of 12 mangoes = ? **(Ans: 6)**

2. Quarter of 20 pencils = ? **(Ans: 5)**
3. If 1 roti cut into 2 equal parts, each part is what fraction? **(Ans: ½)**
4. If 1 roti cut into 4 equal parts, each part is what fraction? **(Ans: ¼)**
5. If you drink ½ litre of water from 1 litre bottle, how much left? **(Ans: ½ litre)**
6. If you drink ¾ litre, how much left? **(Ans: ¼ litre)**
7. ½ of 10 = ? **(Ans: 5)**
8. ¼ of 16 = ? **(Ans: 4)**
9. ¾ of 20 = ? **(Ans: 15)**
10. ½ of 50 = ? **(Ans: 25)**
11. ¼ of 100 = ? **(Ans: 25)**
12. ½ of 1 dozen oranges = ? **(Ans: 6)**
13. ¼ of 1 dozen oranges = ? **(Ans: 3)**
14. If 3 children share 1 cake equally, what fraction each gets? **(Ans: ⅓)**
15. If 8 slices in pizza and you eat 2, what fraction eaten? **(Ans: 2/8 = ¼)**
16. If 8 slices in pizza and you eat 4, what fraction eaten? **(Ans: 4/8 = ½)**
17. If 8 slices in pizza and you eat 6, what fraction eaten? **(Ans: 6/8 = ¾)**
18. Half of ₹200 = ? **(Ans: ₹100)**
19. Quarter of ₹200 = ? **(Ans: ₹50)**
20. If you spend ¾ of ₹100, how much left? **(Ans: ₹25)**

Skill-Based Questions with Figures (20)

Use circles, rectangles, chocolates, pizzas, rotis for child-friendly drawings.

1. Draw a circle. Shade half. **(Ans: ½ shaded)**
2. Draw a circle. Shade one quarter. **(Ans: ¼ shaded)**
3. Draw a rectangle. Shade half.
4. Draw a rectangle. Shade ¾.
5. Draw a pizza with 4 slices. Shade 2 slices. **(Ans: ½)**
6. Draw a pizza with 4 slices. Shade 3 slices. **(Ans: ¾)**
7. Draw a chocolate bar with 8 pieces. Shade 4. **(Ans: ½)**

8. Draw a chocolate bar with 8 pieces. Shade 2. **(Ans: ¼)**
9. Draw a roti cut into 2 parts. Shade 1. **(Ans: ½)**
10. Draw a roti cut into 4 parts. Shade 1. **(Ans: ¼)**
11. Draw a square divided into 2 equal parts. Shade 1.
12. Draw a square divided into 4 equal parts. Shade 3. **(Ans: ¾)**
13. Draw a glass half-filled with water. **(Ans: ½)**
14. Draw a jug ¾ filled with juice. **(Ans: ¾)**
15. Draw a plate with 4 apples. Circle 1. **(Ans: ¼)**
16. Draw a plate with 4 apples. Circle 2. **(Ans: ½)**
17. Draw a plate with 4 apples. Circle 3. **(Ans: ¾)**
18. Draw 2 coins. Colour 1. **(Ans: ½)**
19. Draw 4 coins. Colour 1. **(Ans: ¼)**
20. Draw 4 coins. Colour 3. **(Ans: ¾)**

Blueprint — Lesson 9: Halves and Quarters

Objective	**No. of Questions**	**Marks**	**Difficulty Level**
Knowledge	4	4	3 Easy, 1 Medium
Comprehension	3	4	2 Easy, 1 Medium
Application	2	4	1 Medium, 1 Hard
Skill (Figures)	1	3	1 Medium
TOTAL	**10**	**15**	**Easy 50% · Medium 35% · Hard 15%**

Lesson 9: Halves and Quarters

Class: 4 **Subject:** Mathematics
Max Marks: 15 **Time:** 25 minutes

Section A — Knowledge (4 × 1 = 4)

1. How many halves make a whole? **(Ans: 2)**

2. How many quarters make a whole? **(Ans: 4)**

3. Which is bigger: ½ or ¼? **(Ans: ½)**

4. What fraction of a rupee is 50 paise? **(Ans: ½)**

Section B — Comprehension (2 × 2 = 4)

5. If you cut a roti into 2 equal parts, what does each part represent?
   Ans: Half (½)

6. If 3 out of 4 parts of a chocolate are eaten, what fraction is eaten?
   Ans: ¾

Section C — Application (2 × 2 = 4)

7. Find ½ of 20 pencils.
   Ans: 10

8. A pizza has 8 slices. If you eat 6, what fraction is eaten?
   Ans: 6/8 = ¾

Section D — Skill (1 × 3 = 3)

9. Draw a circle divided into 4 equal parts. Shade 1 part.
   - What fraction is shaded? **Ans: ¼**
   - What fraction is unshaded? **Ans: ¾**

Lesson 10: Play with Patterns

Learning Outcomes

By the end of this lesson, children will be able to:

- Identify, extend, and create simple patterns (shapes, numbers, letters, designs).
- Recognise patterns in daily life (clothes, tiles, rangoli, designs).
- Apply rules to continue sequences of numbers and figures.
- Understand symmetry and repeating designs.
- Develop creativity by making their own patterns.

◆ Knowledge Questions (20)

1. What is a pattern? **(Ans: A repeated design or sequence)**
2. Which shape repeats in a rangoli design? **(Ans: Geometrical shapes like circles, triangles, etc.)**
3. What comes next in the pattern: ● ▲ ● ▲ ? **(Ans: ●)**
4. What comes next: A, B, A, B ? **(Ans: A)**
5. What comes next: 2, 4, 6, 8 ? **(Ans: 10)**
6. What comes next: 5, 10, 15, 20 ? **(Ans: 25)**
7. What comes next: 1, 3, 5, 7 ? **(Ans: 9)**
8. What comes after 100, 90, 80? **(Ans: 70)**
9. Which pattern is found in a chessboard? **(Ans: Black and white squares)**
10. What pattern is in a zebra's body? **(Ans: Black and white stripes)**
11. What pattern is in traffic lights? **(Ans: Red, yellow, green in order)**
12. What is the next letter: a, b, a, b ? **(Ans: a)**
13. What number comes next: 11, 22, 33, 44 ? **(Ans: 55)**
14. Which shape comes next: ■ ● ■ ● ? **(Ans: ■)**
15. Which is a natural pattern: leaf veins or chalk line? **(Ans: Leaf veins)**
16. Which is an artificial pattern: wall tiles or tree bark? **(Ans: Wall tiles)**
17. What comes next: 100, 200, 300 ? **(Ans: 400)**
18. What comes next: 50, 40, 30 ? **(Ans: 20)**

19. What comes next: 2, 4, 8, 16 ? **(Ans: 32)**
20. What is symmetry? **(Ans: Same on both sides of a line)**

◆ **Comprehension Questions (20)**

1. Why are patterns useful in daily life? **(Ans: Make things beautiful and easy to recognise)**
2. Why do we see patterns in clothes? **(Ans: For design and decoration)**
3. Which is more regular: a rangoli pattern or clouds? **(Ans: Rangoli)**
4. Why do we use patterns in floor tiles? **(Ans: To look neat and decorative)**
5. Why do traffic lights follow a pattern? **(Ans: For order and safety)**
6. Which is repeating: star-star-circle-star-star-circle? **(Ans: Star-star-circle)**
7. If a shape repeats after every 3 figures, what is this called? **(Ans: Repeating unit)**
8. Why does a zebra's skin look patterned? **(Ans: Stripes in order)**
9. How does a peacock feather show pattern? **(Ans: Colours repeat beautifully)**
10. Which is the repeating unit in: ▲ ● ▲ ● ? **(Ans: ▲ ●)**
11. What comes next: 2, 4, 6, 8, 10? **(Ans: 12)**
12. Which is a number pattern: 3, 6, 9, 12 or mango, apple, orange? **(Ans: 3, 6, 9, 12)**
13. Why do we need rules in patterns? **(Ans: To know what comes next)**
14. How does symmetry help in designs? **(Ans: Looks balanced and neat)**
15. Why do we find patterns in flowers? **(Ans: Natural arrangement of petals)**
16. Which is the repeating part in 121212? **(Ans: 12)**
17. Which is the repeating part in red-blue-red-blue? **(Ans: red-blue)**
18. What is missing in ● ▲ ● ? **(Ans: ▲)**
19. Which looks better: irregular or regular rangoli? **(Ans: Regular rangoli)**
20. Why do we call "A B A B" a pattern? **(Ans: Because letters repeat in order)**

◆ **Application Questions (20)**

1. Continue the pattern: 2, 4, 6, 8, __, __, __. **(Ans: 10, 12, 14)**
2. Continue: 5, 10, 15, 20, __, __. **(Ans: 25, 30)**

3. Fill: ■ ● ■ ● ■ __ __. **(Ans: ● ■)**
4. Continue: A, B, C, A, B, C, __ __. **(Ans: A, B)**
5. Continue: 100, 90, 80, 70, __ __. **(Ans: 60, 50)**
6. Find missing: 2, 4, __, 8, 10. **(Ans: 6)**
7. Find missing: 3, 6, __, 12, 15. **(Ans: 9)**
8. Which comes next: mango, apple, mango, apple, __? **(Ans: Mango)**
9. Continue: 1, 2, 4, 8, __, __. **(Ans: 16, 32)**
10. Continue: 11, 22, 33, 44, __, __. **(Ans: 55, 66)**
11. A rangoli repeats after 5 dots. Fill next 2: ● ▲ ■ ○ ■ __ __. **(Ans: ● ▲)**
12. If one brick wall shows red-blue-red-blue, continue for 2 more. **(Ans: red-blue)**
13. If beads are green-yellow-green-yellow, what comes next? **(Ans: Green)**
14. Fill missing: ● ● ▲ ● ● ▲ __ __. **(Ans: ● ●)**
15. A flower pattern is petal-petal-leaf. Continue next 3. **(Ans: petal-petal-leaf)**
16. Write next 3: 25, 30, 35, __ __ __. **(Ans: 40, 45, 50)**
17. Fill missing: 2, 5, 10, 17, __. **(Ans: 26)**
18. Fill missing: 1, 4, 9, 16, __, __. **(Ans: 25, 36)**
19. Fill: ABC, BCA, CAB, __. **(Ans: ABC)**
20. Fill: ½, 1, 1½, 2, __. **(Ans: 2½)**

◆ **Skill-Based Questions with Figures (20)**

Use pictures of tiles, rangoli, beads, stripes, shapes.

1. Draw circle-triangle-circle-triangle. What comes next? **(Ans: Circle)**
2. Draw star-heart-star-heart. What comes next? **(Ans: Star)**
3. Draw 5 beads: red-blue-red-blue-__? **(Ans: Red)**
4. Draw a floor tile pattern: ■ ● ■ ●. Continue 2 more.
5. Draw a rangoli of ▲ ■ ▲ ■. Continue.
6. Draw a necklace of red-yellow-green repeating. Continue 2 more.
7. Draw 3 rows of bricks red-blue-red-blue. Fill next row.

8. Draw a chessboard (black-white squares).
9. Draw zebra stripes pattern.
10. Draw traffic lights pattern (red-yellow-green).
11. Draw 6 flowers with petal-leaf repeating.
12. Draw a carpet pattern: stripe-stripe-dot.
13. Draw a border of triangle-circle-triangle.
14. Draw wall tiles of square-circle-square.
15. Draw stars in order: 1, 2, 3, 4, next = ? **(Ans: 5 stars)**
16. Draw rectangles in order: small, big, small, big. Continue.
17. Draw smiley-sad-smiley-sad. Next = ? **(Ans: Smiley)**
18. Draw 4 coins: ₹1, ₹2, ₹1, ₹2. Next? **(Ans: ₹1)**
19. Draw letters pattern: A, B, C, A, B, C. Next? **(Ans: A)**
20. Draw dots in increasing pattern: 1, 2, 3, 4, next = ? **(Ans: 5 dots)**

Blueprint — Lesson 10: Play with Patterns

Objective	**No. of Questions**	**Marks**	**Difficulty Level**
Knowledge	4	4	3 Easy, 1 Medium
Comprehension	3	4	2 Easy, 1 Medium
Application	2	4	1 Medium, 1 Hard
Skill (Figures)	1	3	1 Medium
TOTAL	**10**	**15**	**Easy 50% · Medium 35% · Hard 15%**

Lesson 10: Play with Patterns

Class: 4 **Subject:** Mathematics
Max Marks: 15 **Time:** 25 minutes

Section A — Knowledge (4 × 1 = 4)

1. What comes next: ● ▲ ● ▲ ? **(Ans: ●)**

2. Which pattern is found in a zebra's skin? **(Ans: Stripes)**
3. What comes next: 5, 10, 15, 20 ? **(Ans: 25)**
4. Which pattern is in a chessboard? **(Ans: Black and white squares)**

Section B — Comprehension (2 × 2 = 4)

5. Why are traffic lights arranged in a pattern?
   Ans: To give order and safety.
6. Which is the repeating unit in red-blue-red-blue?
   Ans: Red-blue.

Section C — Application (2 × 2 = 4)

7. Continue: 2, 4, 8, 16, __, __.
   Ans: 32, 64.
8. Fill missing: A, B, C, A, B, C, __, __.
   Ans: A, B.

Section D — Skill (1 × 3 = 3)

9. Draw a pattern of **■ ● ■ ●**.
   - What comes next? **Ans: ■**
   - What is the repeating unit? **Ans: ■ ●**

Lesson 11 – Tables and Shares

Learning Outcomes (LOs):

- Recalls and uses multiplication tables up to 20.
- Solves division as equal sharing and grouping.
- Relates multiplication and division as inverse operations.
- Applies tables in real-life contexts (sharing food, arranging objects, bills).
- Develops speed and accuracy in mental arithmetic.

A. Knowledge Questions (20)

1. Write the multiplication table of 6.
2. Write the multiplication table of 8.
3. Write the multiplication table of 12.
4. What is 7 × 9?
5. What is 8 × 11?
6. What is 12 × 12?
7. What is 15 ÷ 3?
8. What is 72 ÷ 9?
9. What is 96 ÷ 12?
10. What is 6 × 14?
11. What is 120 ÷ 10?
12. What is 9 × 8?
13. What is 11 × 7?
14. Write factors of 36.
15. Write multiples of 5 up to 50.
16. Write multiples of 9 up to 90.
17. What is half of 64?
18. What is one-third of 21?
19. What is one-fourth of 48?

20. What is double of 45?

B. Comprehension Questions (20)

1. Why do we need multiplication tables?
2. Why is division called equal sharing?
3. How is multiplication related to repeated addition?
4. How is division related to repeated subtraction?
5. If 72 chocolates are shared equally among 9 children, how many each?
6. If 56 apples are shared among 7 baskets, how many in each basket?
7. If 96 toffees are packed in 12 boxes, how many in each?
8. If 100 pencils are shared among 20 children, how many each?
9. A class has 36 children sitting in 6 rows. How many in each row?
10. A farmer has 42 mangoes. He packs 7 in each basket. How many baskets?
11. Why is 12 × 8 the same as 8 × 12?
12. Why is 15 ÷ 3 equal to 5?
13. Why do we say "division is inverse of multiplication"?
14. A table shows 5 × 8 = 40. Write its division facts.
15. A table shows 9 × 7 = 63. Write its division facts.
16. If 5 children share 20 sweets, how many per child?
17. If 8 children share 72 bananas, how many each?
18. Which is bigger: 9 × 12 or 10 × 11?
19. Which is smaller: 64 ÷ 8 or 100 ÷ 20?
20. Why is practice of tables important?

C. Application Questions (20)

1. A shopkeeper has 144 chocolates. He packs them in 12 boxes. How many per box?
2. A man has 72 apples. He puts 9 in each basket. How many baskets?
3. A woman has 180 pencils. She divides equally among 15 children. How many each?
4. A farmer has 128 mangoes. He puts 16 in each basket. How many baskets?

5. A factory packs 240 toys in 20 boxes. How many toys per box?
6. 96 marbles are shared among 8 children. How many each?
7. 108 toffees are shared among 12 children. How many each?
8. 75 oranges are packed in 15 boxes. How many in each box?
9. A class of 48 children is divided into 6 rows. How many per row?
10. A table has 9 rows with 8 chairs each. How many chairs?
11. A farmer has 12 cows. Each gives 15 litres milk. How many litres in all?
12. A worker makes 25 toys in 1 day. How many in 8 days?
13. A shopkeeper sells 120 eggs in 6 trays. How many eggs per tray?
14. A bus has 40 seats. How many seats in 15 buses?
15. A garden has 25 rows of 20 plants each. How many plants?
16. If 400 apples are divided among 25 children, how many each?
17. If 2 pencils cost ₹10, how much do 12 pencils cost?
18. If 1 pen costs ₹8, how many pens can be bought with ₹96?
19. If 5 notebooks cost ₹100, what is cost of 20 notebooks?
20. If 72 laddus are shared equally among 24 children, how many each?

D. Skill-based Questions (20)

1. Draw 6 groups of 4 stars. Write multiplication fact.
2. Draw 3 groups of 8 balls. Write multiplication fact.
3. Draw 4 groups of 5 apples. Write multiplication fact.
4. Draw 2 groups of 12 circles. Write multiplication fact.
5. Draw 24 dots and circle groups of 6. Write division fact.
6. Draw 30 dots and circle groups of 5. Write division fact.
7. Draw 40 dots and circle groups of 8. Write division fact.
8. Draw 60 dots and circle groups of 10. Write division fact.
9. Puzzle: If 8 × ? = 72, what is ?
10. Puzzle: If ? × 12 = 96, what is ?
11. Puzzle: If 9 × 9 = ?, what is ?

12. Puzzle: If 100 ÷ ? = 25, what is ?
13. Write all factors of 24.
14. Write all factors of 36.
15. Write first 10 multiples of 7.
16. Write first 10 multiples of 12.
17. Activity: Recite multiplication table of 13.
18. Activity: Recite multiplication table of 17.
19. Activity: Share 48 pencils among 6 children practically.
20. Activity: Arrange 30 chairs in equal rows of 5. How many rows?

Lesson 12 – How Heavy? How Light?

Learning Outcomes (LOs):

- Understands and uses standard units of weight (g, kg).
- Converts grams into kilograms and vice versa.
- Compares weights of different objects.
- Estimates and measures mass using a balance.
- Solves word problems involving addition, subtraction, multiplication, and division of weight.

A. Knowledge Questions (20)

1. What is the standard unit of weight?
2. How many grams are there in 1 kilogram?
3. Write the short form of kilogram and gram.
4. Which is heavier: 1 kg or 500 g?
5. Which is lighter: 250 g or 1 kg?
6. Convert 2 kg into grams.
7. Convert 3,500 g into kilograms.
8. Convert 7 kg into grams.
9. Convert 4,200 g into kilograms and grams.
10. How many 100 g weights make 1 kg?
11. How many 250 g packets make 1 kg?
12. How many 500 g packets make 2 kg?
13. Write 1.5 kg in grams.
14. Write 750 g in kilograms and grams.
15. Write 2.25 kg in grams.
16. Write 4,750 g in kilograms and grams.
17. Which is heavier: 1,200 g or 1.2 kg?
18. Which is lighter: 1.5 kg or 1,250 g?
19. Which is bigger: 3,000 g or 3.5 kg?

20. Which is smaller: 5 kg or 5,500 g?

B. Comprehension Questions (20)

1. Why do we use grams and kilograms to measure weight?
2. Why can't we measure weight with a ruler?
3. Which unit will you use to measure weight of a pencil? Why?
4. Which unit will you use to measure weight of a sack of rice? Why?
5. A packet of biscuits weighs 250 g. How many such packets make 1 kg?
6. A baby weighs 3 kg. Write in grams.
7. A mango weighs 750 g. Write in kilograms and grams.
8. Which is heavier: 1.5 kg sugar or 1,250 g sugar?
9. Which is lighter: 2.5 kg rice or 2,250 g rice?
10. A cat weighs 4,500 g. Write in kilograms and grams.
11. A goat weighs 32 kg. Write in grams.
12. Which is heavier: 2,000 g or 2 kg?
13. Which is lighter: 1,750 g or 1.8 kg?
14. Why is estimation of weight useful in markets?
15. A loaf of bread weighs 400 g. Write in kilograms and grams.
16. A bottle of oil weighs 2.25 kg. Write in grams.
17. A packet of salt is 1.5 kg. Write in grams.
18. A sack of flour is 35 kg. Write in grams.
19. Which is more: 2 kg apples or 1,800 g bananas?
20. Which is less: 5,500 g potatoes or 6 kg onions?

C. Application Questions (20)

1. A bag of rice weighs 25 kg. How many grams is it?
2. A sack of sugar weighs 38 kg. Write in grams.
3. A child weighs 32.5 kg. Write in grams.

4. A packet of milk powder is 750 g. How many packets make 3 kg?
5. A bottle of oil is 2.5 kg. Write in grams.
6. A sack of flour weighs 50 kg. How many 5 kg bags can be made?
7. A sack of wheat is 35 kg. How many 7 kg bags can be made?
8. A shopkeeper has 48 kg rice. How many 2 kg packets can he make?
9. A boy bought 5 kg apples. His friend bought 3,500 g oranges. Who bought more?
10. A woman has 4.5 kg sugar. She uses 2.25 kg. How much remains?
11. A grocer has 10 kg rice. He sells 7.5 kg. How much is left?
12. A box weighs 12.5 kg. What is its weight in grams?
13. A baby weighs 3,250 g. Write in kilograms and grams.
14. A sack of potatoes weighs 62.5 kg. Write in grams.
15. A watermelon weighs 2.75 kg. Write in grams.
16. A mango weighs 1.25 kg. Write in grams.
17. A cow weighs 120 kg. Write in grams.
18. A sheep weighs 52.5 kg. Write in grams.
19. If 1 kg sugar costs ₹40, what is cost of 7.5 kg?
20. If 500 g rice costs ₹20, what is cost of 5 kg?

D. Skill-based Questions (20)

1. Draw a balance with equal weights.
2. Draw a balance with heavier side down.
3. Draw 1 kg packet of sugar.
4. Draw 250 g chocolate bar.
5. Puzzle: If 1 orange = 250 g, how many oranges in 1 kg?
6. Puzzle: If 1 mango = 500 g, how many mangoes in 5 kg?
7. Puzzle: If 1 apple = 200 g, how many apples in 2 kg?
8. Draw 4 packets of 250 g each and label total weight.
9. Draw 2 packets of 500 g each and label total weight.

10. Draw a sack of rice labelled 25 kg.

11. Draw a baby weighing 3.5 kg.

12. Draw a goat weighing 28 kg.

13. Puzzle: Which is heavier—4 packets of 250 g each or 2 packets of 600 g each?

14. Puzzle: Which is lighter—3 kg of rice or 2,800 g of wheat?

15. Draw balance showing 1 kg rice on one side and 2 × 500 g packets on the other.

16. Match: 1 kg – 1,000 g; ½ kg – 500 g; ¼ kg – 250 g.

17. Estimate: Weight of your school bag.

18. Estimate: Weight of your mother's saree.

19. Estimate: Weight of your chair.

20. Estimate: Weight of your teacher's chalk box.

Lesson 13 – Fields and Fences

Learning Outcomes (LOs):

- Understands and calculates perimeter of simple plane figures.
- Estimates and measures length of boundary using standard units.
- Understands the concept of area as space covered.
- Solves word problems involving perimeter and area in real-life contexts.
- Draws and compares shapes of equal perimeter/area.

A. Knowledge Questions (20)

1. What is perimeter?
2. What is area?
3. Write the formula for perimeter of a square.
4. Write the formula for perimeter of a rectangle.
5. What is the perimeter of a square with side 5 cm?
6. What is the perimeter of a rectangle 6 cm long and 4 cm wide?
7. What is the perimeter of a triangle with sides 3 cm, 4 cm, and 5 cm?
8. What is the perimeter of a square with side 12 cm?
9. What is the perimeter of a rectangle 10 cm long and 8 cm wide?
10. Write the formula for area of a rectangle.
11. Write the formula for area of a square.
12. Find area of a square with side 5 cm.
13. Find area of a square with side 10 cm.
14. Find area of a rectangle 8 cm long and 6 cm wide.
15. Find area of a rectangle 12 cm long and 9 cm wide.
16. What is the unit of perimeter?
17. What is the unit of area?
18. Which is bigger: perimeter of square with side 8 cm or area of square with side 8 cm?
19. Which is smaller: area of rectangle 5×4 or perimeter of rectangle 5×4?

20. True/False: Area is measured in square units.

B. Comprehension Questions (20)

1. Why do we need to find perimeter of fields?
2. Why do we need to find area of fields?
3. A farmer has a square field of side 20 m. Find its perimeter.
4. Find area of the same field.
5. Which is more useful for fencing a field: perimeter or area? Why?
6. Which is more useful for sowing seeds: perimeter or area? Why?
7. A rectangle is 12 m long and 8 m wide. Find its perimeter.
8. Find its area also.
9. A square has side 25 m. Find its perimeter and area.
10. Which field is larger: a square of side 20 m or a rectangle of 25 × 15 m?
11. A playground is 50 m long and 30 m wide. Find perimeter.
12. Find area of the same playground.
13. Which field has bigger area: 40 × 20 rectangle or 30 × 30 square?
14. Why is unit of area always written in square units?
15. Why is unit of perimeter always written in linear units?
16. A garden has perimeter 80 m. If it is a square, find its side.
17. A garden has perimeter 100 m. If it is a rectangle 30 × 20, check.
18. Why does fencing depend on perimeter and not on area?
19. Why does grass covering depend on area and not perimeter?
20. Which shape gives more area for same perimeter: square or rectangle?

C. Application Questions (20)

1. Find perimeter of a square with side 18 m.
2. Find area of a square with side 18 m.
3. Find perimeter of rectangle 25 × 15 m.

4. Find area of rectangle 25 × 15 m.
5. A field is 60 × 40 m. Find its perimeter.
6. Find area of the same field.
7. A garden is square with side 50 m. Find perimeter.
8. Find area of the same garden.
9. A rectangular park is 80 × 50 m. Find its area.
10. A rectangular park is 80 × 50 m. Find its perimeter.
11. A field is 36 m long and 24 m wide. Find perimeter.
12. Find area of the same field.
13. A square field has perimeter 200 m. Find its side.
14. Find area of the same field.
15. A farmer has rectangular field 100 × 80 m. Find area.
16. Find perimeter of the same field.
17. A path is 12 m long and 5 m wide. Find its perimeter.
18. Find its area.
19. A square playground has side 40 m. Find its perimeter and area.
20. A classroom floor is 12 × 8 m. Find perimeter and area.

D. Skill-based Questions (20)

1. Draw a square field of side 5 cm. Find perimeter.
2. Draw the same square. Find area.
3. Draw a rectangle of 6 × 4 cm. Find perimeter.
4. Draw the same rectangle. Find area.
5. Colour boundary of a square to show perimeter.
6. Colour inside of a square to show area.
7. Draw a playground 7 × 5 cm. Find area.
8. Draw a garden 8 × 4 cm. Find perimeter.
9. Puzzle: A square has perimeter 40 m. Find side.
10. Puzzle: A square has area 81 m^2. Find side.

11. Puzzle: A rectangle has perimeter 60 m. If length = 20 m, find breadth.
12. Puzzle: A rectangle has area 96 m^2. If length = 12 m, find breadth.
13. Draw 2 shapes with same perimeter but different areas.
14. Draw 2 shapes with same area but different perimeters.
15. Activity: Measure your classroom floor and calculate perimeter.
16. Activity: Measure your classroom floor and calculate area.
17. Activity: Find area of your notebook cover.
18. Activity: Find perimeter of your notebook cover.
19. Match: Square – 4 equal sides, Rectangle – 2 equal sides, Triangle – 3 sides.
20. Estimate: Which has more area—school playground or classroom?

Lesson 14 – Smart Charts

Learning Outcomes (LOs):

- Collects, records, and represents data using tables, pictographs, and bar charts.
- Reads and interprets information from charts and tables.
- Compares categories and draws conclusions from data.
- Solves simple problems related to daily life using data handling.
- Develops skills of observation and analysis.

A. Knowledge Questions (20)

1. What is data?
2. What is a pictograph?
3. What is a bar graph?
4. What is a table?
5. What does one picture represent in a pictograph?
6. What is the title of a graph?
7. What is a symbol in a pictograph?
8. What does the x-axis show in a bar graph?
9. What does the y-axis show in a bar graph?
10. True/False: Charts help us understand data quickly.
11. True/False: Pictographs use pictures to show data.
12. True/False: A bar graph uses bars of equal width.
13. What is the use of tally marks?
14. How many tally marks make a group of five?
15. Which chart is used to compare data quickly?
16. Which chart is easiest for children to read?
17. Which is better for showing large data—pictograph or bar graph?
18. What is the first step in data handling?
19. What is the second step in data handling?

20. What is the third step in data handling?

B. Comprehension Questions (20)

1. Why do we use charts and graphs?
2. Why is a title important in a chart?
3. If a pictograph shows 🍎 for 10 apples, what do 5 🍎 mean?
4. If a pictograph shows 🏀 for 5 balls, what do 20 balls mean?
5. Why do we use symbols in pictographs?
6. Which is easier to read: a table or a pictograph? Why?
7. A pictograph shows 🐟 for 20 fish. If 3 symbols are shown, how many fish?
8. A bar chart shows number of buses in 4 cities. Which city has the most?
9. Which city has the least?
10. Why must all bars in a bar chart be equal in width?
11. If tally marks show ||||, how many is it?
12. If tally marks show |||| |||, how many is it?
13. Why do we group tally marks in 5s?
14. What information can we get from a school attendance chart?
15. What information can we get from a rainfall chart?
16. Why is it important to label axes in a bar chart?
17. Which is better for comparing boys and girls in a class—pictograph or bar chart?
18. Which is better for showing favourite fruit of 5 children—pictograph or bar chart?
19. Which is better for showing population of states—bar chart or pictograph?
20. How do smart charts help us in daily life?

C. Application Questions (20)

1. A pictograph shows 🍌 = 10 bananas. If 5 🍌, how many bananas?
2. A pictograph shows 🏫 = 50 students. If 7 🏫, how many students?
3. A pictograph shows 🚗 = 20 cars. If 9 🚗, how many cars?
4. A pictograph shows 🐕 = 5 dogs. If 12 🐕, how many dogs?

5. A pictograph shows 🕊 = 25 birds. If 8 🕊, how many birds?
6. A bar chart shows 20 boys and 30 girls in a class. How many children in total?
7. A bar chart shows 45 red cars, 25 blue cars, 30 black cars. Which colour is most?
8. Which colour is least?
9. A tally chart shows |||| |||| |||. How many?
10. A tally chart shows |||| ||||. How many?
11. Favourite fruits pictograph: 🍎🍎🍎 (10 each), 🍌🍌 (10 each). How many apples? How many bananas?
12. Which fruit is more?
13. A rainfall chart shows Jan 20 cm, Feb 30 cm, Mar 25 cm. Which month has highest rainfall?
14. Which month has least rainfall?
15. A bar graph shows buses in 4 cities: 50, 70, 60, 40. Which city has most buses?
16. Which city has least?
17. If 1 symbol 🐟 = 100 fish, how many fish are shown by 12 🐟?
18. If 1 symbol 🚲 = 25 cycles, how many cycles are shown by 8 🚲?
19. A bar graph shows sales: Jan = 150, Feb = 200, Mar = 100. Which month highest?
20. Which month lowest?

D. Skill-based Questions (20)

1. Draw a pictograph for number of toys (Car – 20, Ball – 30, Doll – 10).
2. Draw a pictograph for fruits (Mango – 40, Apple – 20, Orange – 30).
3. Draw a pictograph for pets (Dog – 15, Cat – 10, Parrot – 5).
4. Draw a bar chart for children's favourite games (Cricket – 25, Football – 30, Hockey – 15).
5. Draw a bar chart for children's favourite colours (Red – 10, Blue – 15, Green – 5).
6. Draw a bar chart for transport used (Bus – 20, Cycle – 10, Car – 5).
7. Draw tally marks for 12.
8. Draw tally marks for 18.
9. Draw tally marks for 24.

10. Draw tally marks for 29.

11. Puzzle: If  = 5, how many balls are shown by ?

12. Puzzle: If  = 10, how many apples are shown by ?

13. Puzzle: If  = 50, how many cars are shown by ?

14. Draw a pictograph of vehicles: Bus – 30, Car – 20, Cycle – 10.

15. Draw a pictograph of pencils: Red – 12, Blue – 8, Green – 20.

16. Collect data of your classmates' favourite food. Show as pictograph.

17. Collect data of your classmates' favourite games. Show as bar chart.

18. Collect data of your family's favourite fruits. Show as bar chart.

19. Activity: Count and record vehicles passing your school in 10 minutes. Make chart.

20. Activity: Survey 10 friends for their favourite colour. Show result as pictograph.